The ALS-project. 1st Report: Four National systems

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The ALS-Project

1st Report:

Four national systems

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1. Introduction – problem and analytical framework

This is the first report from the ALS project entitled *Analysis of qualification strategies in the EU, as part of a more dynamic and close interaction between companies, employees and educational institutions*. The overall aim of the project is to improve the interaction between training, school and companies by focusing on the qualifications of the teachers who are responsible for passing on such qualifications to educational programmes and courses. What qualifications will teachers need to meet the challenges that the educational systems are facing? The weight of the project thus differs from that indicated by the title.

Hypothesis for the project and the report
The project is motivated by the fact that production and the labour market is undergoing considerable change in all the countries of the European Community. Part of the change is related to new production technologies being introduced both in the form of new machines and new ways of organising work, while another part is related to the internationalisation and globalisation forcing many companies to find their way in a much larger market. Finally, change is related to changes in the group of workers and students, e.g. the rising average age and the rising share of senior students.

These changes also place demands on the vocational training system, particularly on the adult training system. For many workers lifelong learning is not only a buzzword. It is an absolute necessity, an obligation, if they want to stay competitive to keep their jobs in a rapidly changing labour market, and knowledge therefore has to be improved and adjusted on a regular basis. As a consequence, the vocational training system is facing a double challenge: to be able to support the development of the qualifications requested while at the same time supporting the people for whom training offers both opportunities and a feeling of insecurity.

The situation is complicated by the fact that the teachers of the vocational training system are also under pressure to develop and improve their qualifications. Moreover, the teachers are facing a dilemma: on the one hand they see further qualification as an opportunity, but on the other hand they feel that it would be unwise not to improve their qualifications. This is where the ALS-project comes in. There are many important similarities across the EU countries. By examining the situation in the various countries it may be possible to spot some development patterns, which do not seem clear when examining countries one by one. In that way, countries may inspire each other to solve the problems they face. Finally, the comparative element may highlight the existing differences and thus the countries' special characteristics, which are essential to take into account when developing the vocational training programmes and teacher qualifications. This project compares the situation in four EU countries: Italy, Finland, the United Kingdom and Denmark.

In short, the project aims at clarifying and solving the following problem: the vocational training systems are having difficulties in satisfying the new demands made on them, and there is reason to believe that they will not be able to do so without qualifying teachers. The question

is, therefore: will it be possible to develop a teacher qualification model that complies with these needs, seen in the light of the challenges that the vocational training systems are facing. Such a model may relate to the *content* of teacher qualification and to the *form* of such qualification.

The following questions will also need to be answered: What challenges are the systems facing? What factors are restricting or supporting such qualification of teachers? And if it is possible to develop a common model, will such a model then correspond to existing systems with their traditions and national characteristics?

This is the general project hypothesis. This first report aims at setting up the basis for the development of a teacher qualification model. The report is part of the preparatory work for the design of a teacher qualification model that may be used (if only as a source of inspiration) in several countries. The primary purpose of the report is therefore to answer the following questions:

1 What is the situation in the four countries in relation to
   - system design;
   - teacher group composition, recruitment and initial education;
   - continuing education of teachers;
   - changes and challenges?
2 What are the common features and what are the differences?
3 What are the perspectives for the design of a common model?

For the purpose of this project, the vocational training system has been delimited to comprise only the parts of the vocational training programmes primarily targeting vocational training of adult unskilled or semi-skilled workers. This delimitation has not been 100% possible in all cases, first of all because the four countries divide and organise their training systems in different ways. We have, however, attempted to make this delimitation for several reasons.

Firstly, the delimitation focuses on the part of the programmes that are not part of the general educational system, that mainly target adult students (although a relatively large number of young students attend these programmes in some of the countries) and that do not have the characteristics of further education. Secondly, the delimitation focuses on the part of the programmes targeting the labour market directly. It should be noted, however, that we do not consider such programmes to be the only ones that offer real qualifications. As can be seen from the theoretical framework of the project (see below), one of the fundamental assumptions of the project is that qualifications are not only acquired in special training programmes and nowhere else. Qualifications may also be acquired outside training programmes (e.g. as part of daily work) and may be acquired as part of training programmes that are not necessarily directed towards a particular job function. Liberal education programmes (e.g. painting courses, language courses or courses in the art of Ikebana) may thus also offer qualifications, although such courses are not formally part of the vocational training system.

First of all, the delimitation of the report is based on practical considerations relating to the size of the field it is possible to cover within the framework of the project. Delimitation has been necessary. But apart from practical considerations, the delimitation is also based on the fact that vocational training, unlike liberal education, for example, *aims* at qualification and for political reasons must offer qualifications to the labour force. It therefore seems natural to start here to improve the interaction between training, companies and employees.

The decision to exclude higher education is based on some fundamental differences in the groups attending the programmes of the two systems and differences between the conditions offered by the vocational training system and higher education. It would therefore make no sense to attempt to cover both systems in the same project.

Basis of the report

The report is based on descriptions of the systems and the situations in the four countries. These descriptions have been made by the national partners participating in the project on the basis of a questionnaire prepared by the research coordinator of the project. In the questionnaire, the partners in the project were asked to answer quality-specific questions regarding the adult and continuing educational systems in the four countries, the teachers of the vocational training systems, conditions relating to training and continuing training and the most important challenges that the country in question was facing.

The questionnaire is attached as an appendix to this report. The answers were to provide a basis for understanding the challenges and the changes that the systems are facing as well as a basis for the understanding of the traditions and the framework represented by the systems, e.g. as to what decisions are made by whom, what degree of autonomy is given to the teacher and what is the tradition for continuing education. As we will explain below, it was not possible to answer all the questions: Information was inadequate in relation to some of the questions, and in relation to others it was difficult to give unambiguous answers as in some cases the questions involved more than a single system.

The procedure was that each country made a description of their particular system based on the questionnaire. The description was sent to all the partners in the project, and in December 2000, the systems were presented orally at a seminar held in Randers, Denmark, on the basis of the descriptions. In that way, it was possible to explain the descriptions and ask elaborative questions. On the background of the seminar, a short description was made of each system within the analytical framework, and the description was subsequently commented on, amplified and adjusted by the partners involved. A further discussion of the systems and the preliminary conclusions took place at a seminar in Marcerata, Italy, in March 2001.

The description of the four countries' systems is based upon information already available. Carrying out new, independent empirical studies was not part of the project design. The descriptions included in the next section are therefore the result of the information available

after it passed through the analytical filter. The purpose of the descriptions set out in this report is to present the *basis* of the model(s) that can or might be developed. The design of the models will be the subject of the second project report.

Analytical framework

The descriptions and the analysis of the four systems in relation to the development of a common teacher qualification model were prepared within a framework consisting of several elements. Firstly, these elements concern an understanding of qualifications and the acquisition of qualifications; secondly, an understanding of learning and thirdly an understanding of the significance of the educational structures.

The basis of the *understanding of qualifications* is the G*eneral Qualification Project*, a research project that was completed from 1992 to 1996 by a group of researchers at Roskilde University in Denmark in collaboration with the National Labour Market Authority, the Danish Ministry of Labour and the Danish Research Academy. The project aimed at developing a concept for the understanding of general qualifications in particular. The project group concluded that first of all it was important to perceive qualifications as isolated entities, as bits and pieces that can be moved around. Qualifications are always contextualised. As a result, qualifications are not just something that you have – you have them in a certain way, in a certain context and under certain circumstances (Andersen et al. 1993, 1994, 1996).

A person's qualifications combine with that person's other qualifications, skills and characteristics, and the various qualifications and various types and levels of qualifications interact. They are part of a subjective context in which the person's gender, ethnicity, cultural background, social position, the social framework in which the person acts, etc. also play a part.

Such qualifications also interact with the social framework of which they are part, for instance the power structures and organisations present in a person's daily life (for instance whether a person is inside or outside a production targeting a market or what degree of autonomy or room for manoeuvre the organisation gives to the employee in question). This is important for the way a person can or will put the qualifications that he or she holds and uses in private life to use in a work context.

These reflections were summed up in two figures: The tulip and the map (Figures 1 and 2).

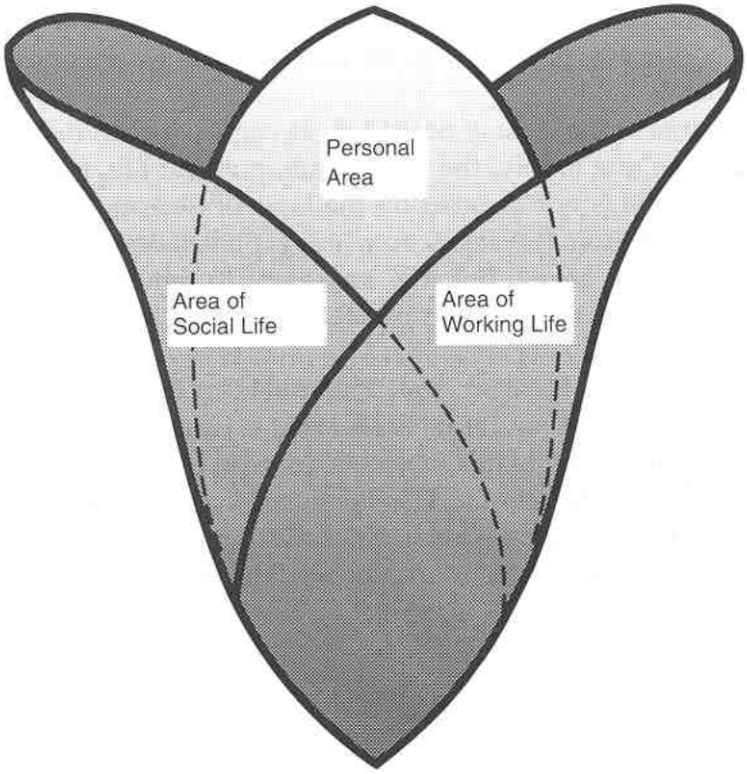

Figure 1 The Tulip (from Andersen et.al. 1994)

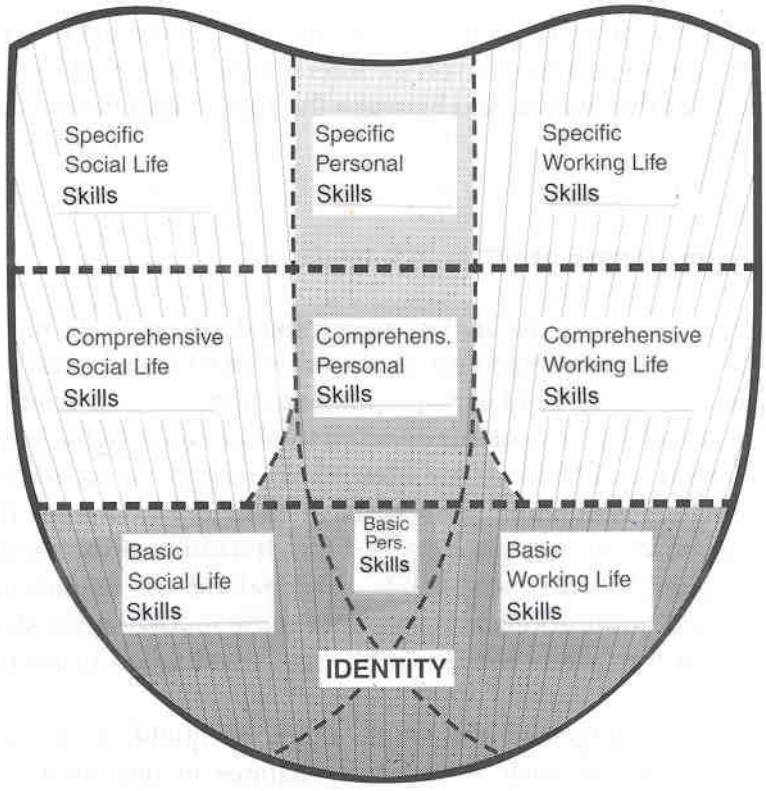

Figure 2 The Map (from Andersen et.al. 1994)

These are search models in the sense that they do not represent a person, but instead they model the reflection and analysis of qualifications. The main point of the tulip is that we are

part of various contexts (divided into three: everyday life, working life and personal life) in which qualifications are developed and used. These contexts have different basic sets of logic and conditions, which influence the way qualifications develop, and the position they achieve in a particular person. In the map, the tulip is "in bloom" and divided into three levels indicating the different depths qualifications may have in relation to the person holding or developing them, but also indicating that qualifications may interact across areas or levels.

In other words, this part of the analytical framework of the ALS-project emphasises a holistic approach to qualifications. Holistic both in relation to the individual and in relation to the entire social context of which such an individual is part.

On the basis of this understanding of qualification theory, the teachers' life stories and biographicity also become important (Alheit 1990, Ulriksen 1996). Teachers do not enter the classroom merely as teachers. They bring their entire background (for example their educational and job-related backgrounds) and the ideas and understandings they have about the future (for example their ideas of how their lives and jobs will develop, their understanding of the life paths they are following and consequently their interpretation of the context they are currently in). Teachers' backgrounds and ideas are active elements in their total range of qualifications. They are integral and shaping parts of teacher qualifications to the effect that the way they manage their teaching jobs is influenced by their backgrounds and ideas. But not only teachers' educational and job-related backgrounds play a role. So do the choices made by a particular teacher in respect of his or her entire life, and part of these choices are influenced by the teacher's gender, social background and regional position. Frequently, it will not be possible to gain access to this information in advance, but it is an important parameter to include in considerations when deciding the content of a qualification model and its design.

The second element of the analytical framework is the *understanding of learning*, and primarily the relationship between learning and practise. The understanding of qualifications already has some consequences for the reflections in respect of learning. First of all, learning and development of qualifications constitute a comprehensive process that must include cognitive, emotional and social dimensions (Illeris 1999). Moreover, a holistic view of qualifications must necessarily perceive learning as something that comprises and is taking place across formalised and non-formalised educational contexts. Learning is the process through which each individual passes – often closely related to others and as part of a collective process. But it is an important starting point for the analysis that learning and qualification is a process that takes place across contexts and not necessarily as part of a planned learning context. But an attempt can be made to organise the framework around learning – both in the form of formalised education and in the form of opportunities for reflection.

As a result, it becomes both interesting and necessary to deal with the relationship between learning and practice. Firstly, in relation to the question of learning *in* and *through* practice. Secondly, in relation to the question of the relationship *between* learning and the practice in which the acquired knowledge is to be used. This is particularly interesting in the situations

where the acquisition of qualifications takes place in special well-defined educational programmes or courses. Thirdly - also in relation to the acquisition of qualifications in educational institutions and schools – in relation to the question of contextualised and decontextualised learning (Bernstein 2000).

As for the first point: Focus on learning in and through practice has increased during the past ten years, driven by studies of how practitioners and professionals learn, both in educational contexts and in daily practice (Schön 1983, Lave & Wenger 1991, Wenger 1998). These studies have shown that knowledge is context bound and that learning is often situated, i.e. connected to participation in specific practical contexts. This understanding of learning thus also focuses attention on the fact that learning often takes place in a social context, and that learning is connected to the handling of a joint enterprise.

The emphasis on the situated and context bound aspects of learning also points to the fact that part of the knowledge that we acquire and use in our practical context is tacit, i.e. it is not immediately linguistically accessible, but it is available as practices, understandings and routines that are used unconsciously by the individual.

In relation to teacher qualification, this means that attention should be drawn to the parts of the teaching job and teacher qualifications that are not necessarily included in a curriculum. This also means that a considerable amount of learning is included in the practice that teachers are part of, but that it is uncertain whether such learning is connected to the qualifications that may be the solution to the changes that the educational programmes are facing. Teacher qualification must therefore relate to the fact that part of the learning process takes place through practice (and as a result also to the kind of learning) and consider how teachers' practice may be placed in a targeted qualifications framework.

As for the second point, the relationship between learning and practice: part of the teacher qualification process takes place by means of formalised educational programmes. Although the extent varies from country to county (see sections 2B and 2C) it is characteristic that organised efforts to change teacher qualifications often take the form of educational programmes or courses. As a consequence, it is relevant to consider the connection between learning and practice. This is thus a classic pedagogical problem: how is transfer made?

We do not intend to solve the transfer question in this project, but merely to answer the following questions: In relation to teacher qualification, how is the relationship between learning in an educational or school context and teachers' practice as teachers? What attempts have been made to establish a connection between courses and teachers' practical contexts?

This has to do with the third point – contextualised and decontextualised learning: An important characteristic of the content of school learning is that it has been separated from the original context, in which it was produced or in which it is used (Bernstein 2000). Content is separated from this context and brought into the school where it becomes part of school con-

tent. This applies to the practical subjects taught by teachers (be it accounting or paving), and it applies to the teachers' own education and training. The content is extracted from its original context and is placed in another context. In that way the term seems wrong: neither learning nor content is decontextualised. The context changes, and both learning and content are extracted from the context (decontextualised) in which they are to be used - for instance the practical teaching. But a new context is established: a school context.

In relation to teacher qualification, it is thus relevant to consider whether, and if so, how teacher qualification is decontextualised. And it is relevant to consider what new context is established around qualification and content.

The third point of the analytical framework is related to the *organisation of educational systems or the division of labour between educational systems.* The educational systems are organised in various levels and parts with a division of labour between levels. The division represents differences relating to knowledge content and knowledge forms and differences in social power and status. A fundamental division is the one between academic work and craftsmanship, between intellectual and manual work. In three out of four countries involved (the UK excluded) the division of labour has resulted in a division of the areas covered by two ministries: a ministry of labour and a ministry of education.

In relation to this project, the division mainly has a bearing on the way teachers and students think, and how they perceive the content of training programmes. As education is also a socialisation process, a person completing an educational programme not only acquires knowledge. He or she also develops a certain way of perceiving and thinking. The socialisation process that takes place as part of academically-oriented educational programmes as compared with vocationally-oriented training programmes will therefore cause students to develop different basic perceptions of what relevant knowledge is, what suitable ways of solving problems are and what part of knowledge is relevant for a particular profession or trade. The differences in this connection will often relate to the differences in learning style (Kolb 1984).

In relation to teacher qualification, the different thinking, analysing and learning styles developed by teachers have an immediate bearing on the way teachers understand students' (participants') ways of acquiring knowledge. This basic understanding of differences thus constitutes part of the qualifications that a teacher needs. But equally important, these are factors that influence the way teachers think, work and learn. The socialisation process that teachers have been through as part of their own general education or training (academic or craft-oriented) will influence their own qualification strategy, but it will also to a very large degree influence the way they understand and interpret the changed requirements that are made to their teaching, to the content of their teaching and to the qualifications they are to help students develop. Teachers' own educational backgrounds will for instance often influence their understanding of the requirements for analytical abilities.

Finally, the division of labour in the educational system also has a vertical dimension that relates to the question of who is responsible, who has the right to influence and make decisions regarding the various parts of the educational programmes, for instance the selection of material and preparation of courses, and who handles contact to buyers – primarily companies.

Structure of the report

As already mentioned, the analytical framework has been part of the phrasing of the questions that the partners in the four countries were called upon to answer and clarify, and it has also been part of the analysis of the answers. The analysis will not meticulously examine the analytical framework. The framework is, as the name indicates, a framework surrounding the analysis and the discussion of the four countries' contributions and systems. In most cases, theory will therefore provide the basis of the analyses and conclusions set out in the subsequent parts.

Section 2 of the report examines the four national systems. The section is divided into four main parts dealing with:

A. the educational systems in which the teachers teach;
B. recruitment of teachers and their initial education;
C. further and continuing education of teachers; and
D. the challenges that the educational systems are facing.

Each main part of the chapter describes each of the four countries separately and thus permits the reader to form an idea of each country's system before comparisons and analyses.

Section 3 then draws some lines across the four systems: first the general common features (3.1) and then the general differences (3.2). The section then focuses on the four countries' systems for teacher qualification, both relating to form and content (3.3). The first three parts lead to the subsequent two parts, which will further analyse the dilemmas that the educational programmes are facing (3.4) and the issues related to the teachers' attitudes towards education and development that are important for the content and forms of qualifications (3.5). Finally, the report draws some lines in relation to the development of a teacher qualification model (3.6), which will be the subject of our further work and our next report on the project.

2. Description of the four systems

In this section we will describe the educational systems of the four countries involved in this project. The description will form the basis of an analysis of different characteristics that both indicate different ways of dealing with similar challenges and tasks and point to the different national and historical backgrounds and conditions for each system. These differences must be taken into account when the system for teacher qualifications is developed in the next part of the project.

The descriptions are based on the contributions from the partners in the project, and they are made for analytical purposes. This means that they are not intended to give a full picture of the vocational training system in the countries, but rather sum up and present the most important elements in order to analyse and develop models for teacher qualifications in the vocational training systems. The section is thematically organised and, in order to get information on a particular national system, the reader will have to read across the four parts of the section. Section three provides a comparison of the four systems.

A: Description of the system

It follows from section 1 that this description deals with those parts of adult (and to a certain extent youth) education that is part of the vocational training system. Accordingly, it does not include parts of the adult education system that may have an impact on the capabilities and qualifications of the individual as a part of the labour force, but in which the courses or programmes involved are not regarded as vocational training. This relates e.g. to liberal education programmes.

Italy

The integration of the Italian vocational training system in the educational system as a whole is shown at figure 3.

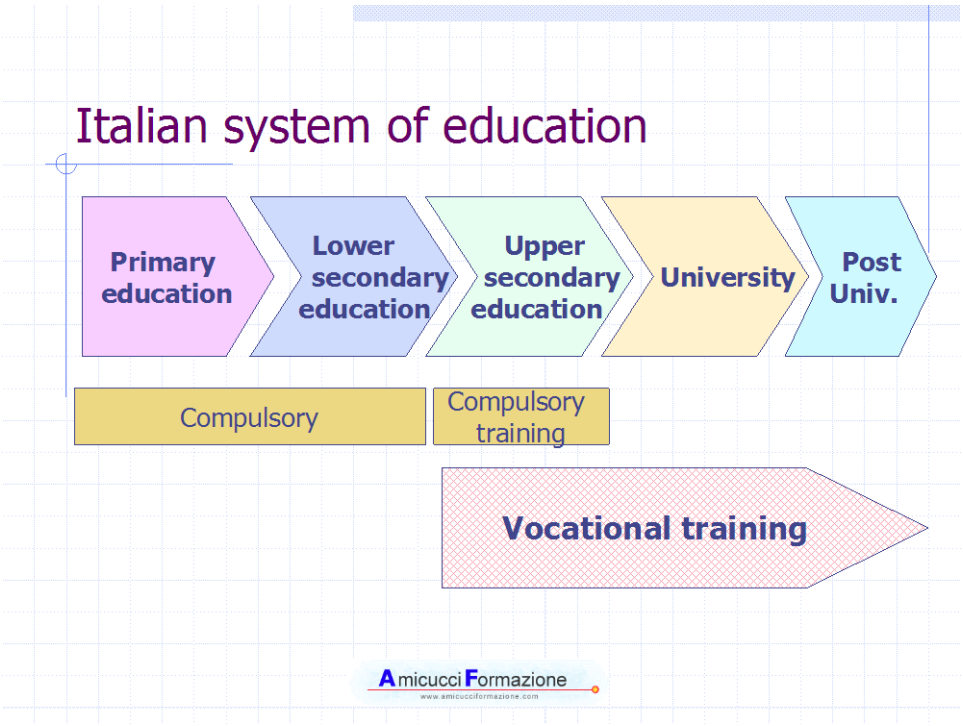

Figure 3: The Italian system of education

Until recently, vocational training was post-compulsory, aimed both at the young people who left school at the age of 13 without continuing in upper secondary education and at adults who needed vocational training, be it in relation to their work, in relation to a change of job or in relation to unemployment. A formal indication of this role as a parallel system for school leavers or for the work force is that the vocational training system is governed by the Ministry of Labour, while the rest of the system is under the Ministry of Education.

Since 1999, compulsory schooling in Italy has extended to the age of 18. Students can now choose between a diploma (for students who for instance wish to study accountancy or a similar vocational study), a lyceum (a 5-year programme aimed at students wishing to go on to university) or a vocational path. In the vocational path, a person has three different options: vocational school to learn a profession, work as an apprentice, or a large and varied number of vocational training courses. The purpose of these courses is to integrate the knowledge that the person gained at school with more practical or specialist knowledge in order to favour a quicker and more qualified entrance to the job market.

Lasting from 3 to 5 years, vocational training is provided by schools under the Ministry of Education. After five years, students can still go to university. Vocational training courses last from 3 months to 3 years. They are managed by the Ministry of Labour and are in many cases funded by the European Social Fund.

Students can transfer between vocational training programmes by obtaining 'credits'. In other words, a student could attend a diploma course for two years, then work as an apprentice for another three years and in this way still complete his or her compulsory schooling.

Another – but no less important – purpose of the vocational training system in Italy is to give workers already in the job market an opportunity to complement or brush up their school training, or for people who already have a diploma or a degree, to acquire more specific and less theoretical knowledge of a given subject.

A wide range of subjects is taught in the vocational training courses and course duration is extensive. Some courses are aimed at unemployed persons while others aim at workers already in a job.

Another distinction should be made between the providers of educational training, namely:

- Courses managed directly by public bodies (such as schools, councils, provinces or regions).
- Courses promoted by public bodies but managed by specialised private agencies (such as training centres managed by trade unions or the Industrial Association of Entrepreneurs)
- Courses promoted by private agencies
- Courses organised by companies for their own employees, often by using private consultancies.

The courses provided by public bodies are usually free for students, and are to a large extent aimed at unemployed persons. Courses provided by private agencies are not free for students, and more often have employed people as their target group. Courses provided by public and private agencies or bodies are eligible for funding from the European Union. Overall, private consultants maintain a strong presence in the vocational training system.

Some private courses are recognised by public bodies. This means that they correspond to the standard of the public courses, and the qualifications they provide are officially recognised on a national level.

The courses are regulated at different levels. At the highest national level the Ministry of Labour establishes the objectives and main categories of workers that need training. The regions – of which there are 21 in Italy – then adapt the national objectives to the local job market conditions. Each province then makes a list of the specific categories of workers and the kind of qualifications that are needed in the area and invites "tenders", and the schools, the public institutions (employment offices, councils etc.) and the private agencies can apply for their courses to be financed. If the course is approved, the detailed syllabus of each course is established by the organisation managing the course. This means that the detailed syllabus of the course is organised by the organisation that manages the course directly, within the broad framework of the qualification requirements defined at the three administrative levels. However, in order to get a project approved, the organisation must make a detailed

presentation of the syllabus, including a description of each unit (which normally takes between two and four hours). This means that the course syllabuses remain under some degree of central control.

The system however is still quite different from the traditional way the education programmes are controlled by the Ministry of Education. Here the Ministry defines the course syllabuses, and the schools apply the syllabus decided at national level.

There seems to be a movement towards giving the regions more autonomy vis-à-vis the national level in defining the educational needs and goals. This means that merits will be regional rather than national, thereby creating a more flexible but also more chaotic system.

Finally, it is important to note that many changes are currently being made to the system, both as regards the basic structure (as with the extension of compulsory schooling) and (as will be described later) the composition of the group of teachers teaching the courses. It is also relevant to point out that the vocational training system and vocational education has been and still is rated as second class. This is an attitude that permeates society and goes from students to teachers or trainers, even when the teachers in vocational schools have the same training as those in other schools. As a result, vocational schools have tried to become like non-vocational schools, i.e. still more theoretical and less practical. The attitude is only just beginning to change because the job market is beginning to demand people with more practical experience and education, in other words, people who fit right into a job. The attitude is also changing thanks to the ESF funds, which have enabled schools to organise very good vocational training courses combining theory with the practical links to companies, and this is very important for the future of education in Italy.

Finland

The Finnish educational system has common primary education up to the age of 15. All education after the age of 15 is voluntary and students are divided into two systems: vocational training or a general upper secondary education. This means that after completing compulsory schooling, students have the option of:

- going to upper secondary school which leads to matriculation examination (3-4 years of studies before the examination), or
- choosing a vocational school that leads to a profession. Nowadays, students can also pass the matriculation examination in vocational school.

After examination at the age of 18, further education could have a professional focus (often in polytechnics) or a broader university based scope.

Finland's vocational adult education system is outlined in figure 4.

General and vocational education for adults		Additional and supplementary training	General self-development
University	Polytechnics (AMK)	• Other supplementary programmes and courses • Specialisation studies at universities /polytechnics	• Studies preparing for civic and working life skills • Social studies
Upper secondary school	Initial vocational education	• Specialist vocational qualifications • Further vocational qualifications • Language proficiency tests • Other additional training	• Interest oriented studies
Certificate- oriented education and training			Non-formal education

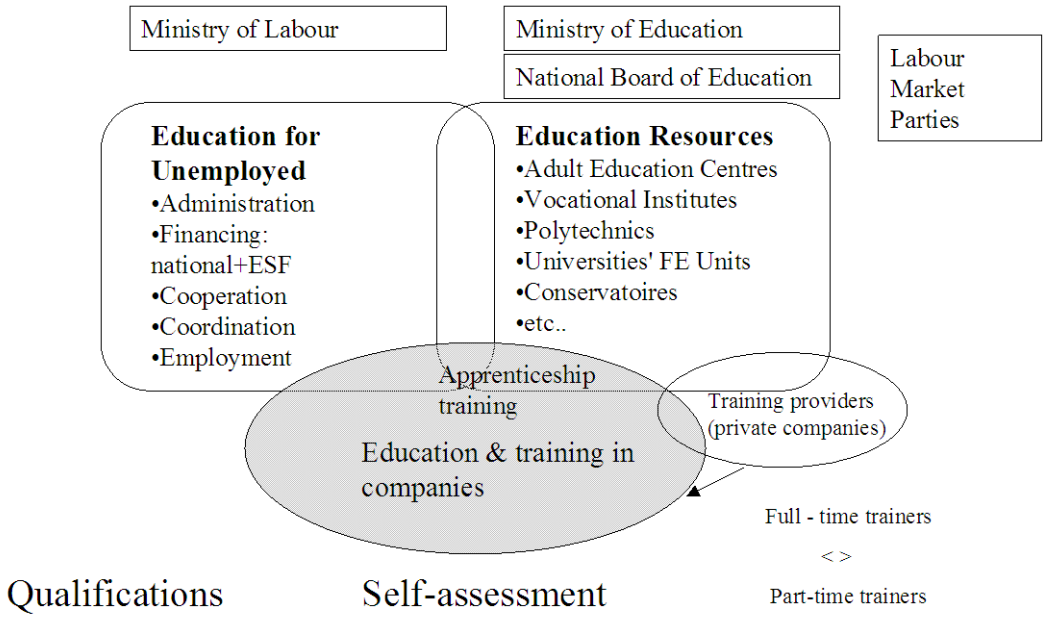

Figure 4a: Adult Education and training system in Finland and
Figure 4b: Vocational Adult Education in Finland
(Source: Education in Finland, 1999, National Board of Education).

The Finnish adult education system described here is targeted at people over the age of 25. There is a division between the Ministry of Education, managing the basic education and the institutions for further education and the Ministry of Labour, dealing primarily with the training of the unemployed. The educational institutions are mainly public – either directly run by the state or by local authorities, the municipalities. The number of state-run institutions is decreasing in favour of more local-run schools. In addition, there are a number of private training providers but they only represent 10-15% of the educational activities.

At course level, it is important to distinguish between three different kinds of study programmes or courses:

- certificate oriented studies with an average duration of 300 working days or more,
- studies for unemployed people (from 3 to 12 months), or
- studies planned for enterprises (from 1 to 20 days).

The certificate-oriented studies depend on regulations, statutes and laws. For each sector or trade (e.g. electricity, IT, building), the management of the educational institution considers the trends and needs in the sector. Decisions are made separately for each business sector. The teachers at the education centre determine the supply of courses, but they do so paying close attention to the needs of the area, the region and businesses.

Also, certain curriculum (or syllabus) requirements must be met if students taking the course are to receive a certificate. In some cases the students must pass an exam in order to get the course certificate.

In a rough division of target groups, 50% of the participants attend the courses on their own initiative, some 40% (but decreasing) are involved in unemployment activities and 10% attend as part of their jobs.

Over the past few years, the number of studies for unemployed people has decreased due to changes in the unemployment rate, while the studies planned specifically for enterprises are increasing. This means that although there are a number of private training providers, the public (state or local) institutions are increasingly providing specially designed courses and studies for enterprises.

In addition to the three types of studies mentioned above, Finland also has other types of adult vocational training. Firstly, there is the apprenticeship system, which is becoming still more frequent as an educational form. Apprenticeship training was previously primarily used by adults, but in recent years it has increasingly been targeted at young people as well. It leads to the same vocational qualifications as training provided by vocational institutions, but also to further vocational qualifications and specialist vocational qualifications (mainly intended for adults), which may be required in that specific field or occupation.

Secondly, there are different opportunities for specialist courses at the polytechnics or the universities.

Thirdly, there is a sector for general self-development, which although formally beyond the scope of this project, still plays an important contributing role in the general education system.

Finally, competence-based examination is a part of the system although it contains no training in the traditional sense, but it gives people the opportunity to acquire formal qualifications after compulsory schooling. Competence-based examination is a new kind of examination. It allows a person to demonstrate his/her vocational skills. Passing the examination is not dependent on *how* the person has acquired the skills, be it through practice or through study programmes. They are open to both adults and young people irrespective of their educational background. It is a way of giving formal credit to the qualifications and skills the individuals actually have, irrespective of formal schooling. The qualifications that can be acquired in competence-based examinations are vocational qualifications and specialist vocational qualifications. In practice, many of those who enter competence-based examination attend courses before the examination, and the examination is often taken in connection with various preparatory training courses.

The Finnish vocational training system is a formalised and mainly public-sector system. It is currently being transformed, with some of the changes intended to meet the growing need for IT-skills (both basic and related to industrial use of IT), to internationalisation and to learning at work, related to the idea of lifelong learning. In addition, the programmes tend to be more individualised, e.g. in relation to companies.

England & Wales

The educational system in the UK is described and divided into a number of levels and carried out by a number of different institutions (see the following figure 5). Compulsory schooling stops at the age of 16 (level 3):

Figure 5: Outline of Public Sector Education System in England & Wales

Educational Institution	**Age range**	**Curriculum**	**Level**	**Authority**
Schools	5 – 16 years	National Curriculum	Entry Level – Level 3	150 Local Education Authorities (LEAs)
Sixth Form Colleges	16 – 19 years	Academic Vocational Curriculum 2000	Level 2 – Level 3	Funded by Further Education Funding Council (FEFC)
Further Education	Adults	Academic,	Entry Level –	Funded by Further

Colleges	16+	Vocational General interest	Level 5	Education Funding Council (FEFC)
Training Centres	Adults 16+	Vocational training	Entry level – Level 3	Private providers through Training and Enterprise Councils (TECs)/Chambers of Commerce & Work-based training centres
Adult Education Centres	Adults 16+	General interest	Entry level – Level 3	Funded by Local Education Authorities (LEAs)
Universities	Adults 18+	Academic Vocational	Level 4 – Level 5	Funded by Higher Education Funding Council (HEFCE)

The FEFC was replaced by the Learning & Skills Council April 2001

3.7 million students were enrolled in 1999-2000 at colleges of further education (FE) in England, according to statistics from the Department for Education and Employment. 19.4% were under 19, and 80.6% were adults.

The vocational training is first and foremost defined and described according to specified qualifications. A qualification is a formally described standard indication of the skills and competences that a person should have in order to get the qualification accredited. The qualifications related to vocational training are divided into three types.

The first is National Vocational Qualifications (NVQ). These standards have been developed with employer involvement. The main body of the qualifications described in the NVQs are the qualifications that employers wish to see their employees achieve. The NVQs are assessed in real work situations but the underpinning knowledge can be delivered in colleges. This means that the assessment relates to the specific job that a person is occupying.
The second type is the General National Vocational Qualifications (GNVQ) which is taught in schools and colleges up to the equivalent of level 3 (or the A-level in the more academically oriented part of the system). It is a more general qualification aiming at young school leavers (16-21 years) who still have not decided their career path. The GNVQ will both include ‘on work experience’ and more academic studies at college. Due to the broad scope of the courses, students will still need a qualification in the NVQ to get a formal work qualification.

The third type is a range of other qualifications that are offered by awarding bodies. Each qualification is equivalent to a number of credits, and the students can compose a merit by

combining credits from different courses and strands. This is a new system and there are still a number of uncertainties as to how it will work.

Training takes place at different educational institutions, both public institutions of different kinds (e.g. further education colleges or adult education centres) and private providers. NVQ & GNVQ are national qualifications that have been drawn up by examination bodies and lead bodies. Colleges choose courses from these bodies to meet the demand in their local areas and then shape their curriculum offer. The structure of these courses may vary from college to college but must meet the specification of the awarding bodies – this is monitored by external verifiers. The college may offer a wide range of courses leading to a wide range of qualifications at all levels.

Further Education Colleges have been independent of the local authorities since the mid-1990s, and have developed as enterprises. Their main source of funding has been through the FEFC - from central Government. The colleges have been able to design their own curriculum in relation to perceived local demand and are funded for them as long as they reach the required achievement targets and quality as assessed by the FEFC and external verifiers from the examination bodies.

The whole sector of vocational training and adult education is undergoing great changes. From April 2001 the FEFC has been replaced by the Learning and Skills Council (LSC), a Non-Departmental Public Body. The LSC has the responsibility for funding, planning and quality assurance of further education for adults and young people, including among other things work-based training, education at schools and colleges, adult and community learning, and information business links.

The LSC has both national and regional offices. The regional LSC will set regional priorities and will require local providers to run courses to meet those priorities. The training organisations are chosen according to demand and the institutions' capacity to deliver a quality programme. These training organisations may be colleges or private training organisations.

The intention is that the LSCs, rather than funding the students' participation in a particular course and without interfering with students' provider preferences, use quality assurance systems and monitoring to pick out the training organisations including colleges where they place the funding and allocate the students. This means that the monitoring and quality control of the colleges will be both close and have substantial consequences for the colleges in question.

The aspiration of the reform is to increase participation in further education at schools and colleges, first and foremost as part-time studies or distance-learning through use of information and communication technology (ICT). Another target is to develop learning at

work, through learning centres and through consciously working with the skills and qualifications development for the workers.

Denmark

Denmark requires nine years of compulsory schooling, usually starting at the age of 7. After the 9th year, students can either take an additional 10th year of schooling, they can go straight to different upper secondary schools or they can leave school. Those who take the additional 10th year can then continue to upper secondary school or leave school. Upper secondary schooling is divided into general upper secondary school or vocational upper secondary school.

The general upper secondary school is three years of schooling aiming at higher education (be it short, medium or long-term HE, which is from 2 to 5 years of additional schooling). An equivalent is the HF (higher preparatory examination) which is two years of study aiming at higher education. It is both used by young students and by adults re-entering formal schooling.

For the most part, vocational upper secondary school aims at crafts and professions of a practical nature (such as e.g. mechanic or secretary) and is usually linked to some kind of apprenticeship. Some of the of vocational upper secondary school programmes aim at higher education, mainly in business or technical studies. 95% of all school leavers enrol in either an academically-oriented or vocationally-oriented upper secondary school, but not all graduate. Some 23% of the young people end up without any formal education.

The adult and continuing educational system can roughly be divided into four sectors: One involves liberal education (or public enlightenment) which includes the “Folk High Schools”. A second sector is the general education providing the opportunity for adults to supplement their school education by offering school subjects at the level of the final years of compulsory schooling (9th and 10th grade) or the general upper secondary school. These courses are offered at adult educational centres (VUC) which are public and run by the counties.

The third sector is the vocational adult education, the AMU-system. This is the part of the adult educational system that the present project will be dealing with.

The fourth sector, open education, is very heterogeneous and includes short courses in IT, and longer courses at university bachelor level. This is also the largest sector.

The AMU-system is exclusively aimed at vocational training. The other sectors however have also been integrated in educational activities aiming at improving worker qualifications. Some companies use the basic school education at the VUC as training for their employees, and many open education-courses (especially the IT-courses) are also being demanded and paid for by companies. In that sense there is no sharp distinction between vocational and non-

vocational training. But since the AMU-system has the most distinct vocational profile this has been chosen as subject of the Danish study in this context.

The AMU-system is regulated by the Danish Act on Labour Market Education which came into force in May 2000. The overall aim of the AMU-courses is to qualify the workforce through vocational training to meet the requirements of the labour market, that is to ensure that the qualifications of the workforce is kept up-to-date as well as improved and expanded in line with changes occurring in the labour market.

The predominant activities consist of the formal competence courses. They are primarily aimed at people who are employed, but unemployed persons are also eligible to participate. In 1999, 73% of the activities in AMU were of this kind. Most of the courses have a duration of three weeks or less. The content of each one is described in a curriculum, defining the general purpose and the aims of the course as well as a broad framework for the content. The aim is described as a number of skills or actions the participant should be able to perform at the end of the course. The curriculum does not specify content of teaching, but rather describes a set of targets that taken together form the aim of the course. Finally the curriculum defines a framework for the course, specifying among other things the qualifications of the teachers. This means that the curriculum leaves room for the local school to adjust and develop – both collectively and for the individual teacher. Teachers are expected to provide individual and independent planning, mediating the two aspects: the central educational plan and the specific interests and experience of each course participant. This could be said to take place at syllabus level.

The general purpose, the aims and the framework of any course must be approved and certified by the National Labour Market Authority (AMS) which is a part of the Ministry of Labour. In this process, the AMS consults the National Training Council, which consists of representatives from unions and employers' organisations in different trades, both from the private sector and the public sector. The National Training Council is a counsel to the Minister of Labour on matters related to labour market education and plays a rather important role in this field. This is a special feature of the Danish system: the tripartite cooperation. The planning, development and adaptation of AMU-programmes takes place in close cooperation between public authorities, the employers' organisations and the unions.

A second type of course are specially designed courses that frequently consist of a number of different elements (e.g. from different trades) and therefore are also of longer duration. They last from 6 weeks to 18 months depending on the target group. These courses, called integrated training courses, are mainly offered to unemployed workers and special courses are also provided to refugees and unemployed immigrants. In 1999, the courses accounted for 25% of the activities. For some of them, the curriculum is described and approved centrally (by AMS), while others are described at the different schools providing the courses.

A third type is targeted at unemployed people who need to clarify what skills they have, and prepare for further education at ordinary AMU-courses (courses for individual clarification of competence). These courses took up 1% of the total activities.

The rest of the activities consist of courses specifically designed for a single or a small number of companies.

Teaching takes place at three different types of schools. The first is the so-called Adult Vocational Training-centres (AMU-centres), previously called schools for unskilled workers. In terms of activities held (not actual participants), 61% of the ordinary courses in 1999 were held at AMU-centres.

The second type is technical schools and business colleges (vocational colleges). These colleges have a rather broad range of activities stretching from basic vocational education for young people entering a trade to short-term higher education in for instance computer work. Some of these schools could be regarded as polytechnics. They account for 35% of the activity, with 14% at the business colleges, 19% at the technical schools and 2% at combination schools.

The third type is smaller, private schools or the like. They take up some 4% of the activities.

The AMU-system has undergone rather extensive changes in the past 10 years. A number of reforms, the latest to be implemented from the start of 2001, have changed the way the education is organised and controlled, redefined the group of potential participants, and revised the financial basis for the courses. Currently, the schools are under severe economic pressure due to changes in national educational polities and this has caused a reduction in the number of teachers employed (see Section 2D).

At the same time, there is an ongoing debate on how AMU-courses and the AMU-system could better meet the needs and interests of businesses. The idea is that the courses should be more closely related to the specific workplace of the participants. This trend both represents a challenge and makes additional demands on the ability of teachers to master in a creative and independent manner a number of pedagogical techniques and analytical skills.

Comparison

The four systems have a number of characteristics in common. Perhaps the most striking mutual element is that of turmoil and change. All national systems undergo change and restructuring, each trying to meet the challenges and demands of the new economy and new market conditions. They do so on different backgrounds, and therefore they point in slightly different directions, but the systems that teacher qualifications should relate to are being transformed.

Another similarity is the division of the educational system between the Ministry of Labour and the Ministry of Education, where the vocational training system for adults in two of the countries is regulated by the Ministry of Labour. In the United Kingdom the control has been allocated to official boards outside the ministries. In Finland the Ministry of Labour has the responsibility only of adult employment training.

Differences can be found on the extent of central control on the curriculum and the mode of control. While in Italy there is regionalisation of the course control there is also a tradition of rather close regulation of the content in the sense that a detailed syllabus must be approved before the schools are allowed to offer a particular course. Furthermore, there seems to be a conflict between the central control by the Ministry of Labour and the growing influence of the regions. The English system rather seems to act the control through monitoring and quality control, while the Danish system describes the content on an overall level, leaving some space for the teachers. In recent years in Finland the decision-making has been transferred more to local authorities.

However, all of the systems are struggling to find modes of control that on the one hand guarantee a national credit and merit and on the other leave room for flexibility and for adjusting course content and teaching methods to meet the needs and requirements of individual courses.

The UK and Finland have both developed a system that tries to give credit for the non-formal learning that workers have achieved through practical work experience, accrediting prior learning through competence-based education and on-the-job evaluation. Systems like this have not been developed in Denmark and Italy.

B: The teachers, their educational background and the role of the teacher

Just as a teacher qualification system must take into consideration the educational system in which the teachers teach, so should the background and the role of the teachers. This includes the educational background, the experience that teachers may have prior to their employment as teachers in the vocational training system, and the functions or roles the teachers are expected to fill out in the educational system. Are they mainly seen as managers of the classroom, are they seen as planners of the syllabus or even of the curriculum? What division of labour can be seen in the systems?

The most striking in the general picture is the scarcity of knowledge about these things. No central records are kept, and since – as shown in the following – there are little specific requirements to the teachers, it is a rather heterogeneous group.

Italy

In describing the Italian situation one should distinguish between different functions that a teacher could have, not all of them actually including teaching. Basically there are three different functions, although more could be added (including specialised functions such as

advising students about opportunities that exist in the job market). Looking at the management of the courses there are normally three different kinds of trainers involved, but in some cases the function can be carried out by the same person:

- The project manager who is responsible for planning the course
- The trainer-tutor, or coordinator, who is responsible for arranging teacher capacity and for ensuring that there is no duplication in the planning of each lesson.
- The trainer-teacher who is responsible for the delivery of the lesson.

More specifically, *the project manager* is fully responsible for structuring the project from the needs analysis to the final evaluation of the results of the project. The project manager analyses the needs for vocational training and designs training projects on the basis of the needs identified. He or she also selects the personnel and manages teams of teachers. The function as a manager requires both analytical and social skills (including group work skills) and it is characterised by a good degree of autonomy and responsibility.

The trainer-tutor monitors the on-going training process and represents the link between students and teachers. The tutor takes part in meetings in which plans for the course methodology are drawn up. The tutor can also manage small parts of the lessons, such as role-playing or simulations. Finally, the tutor takes part in the evaluation of the training course. The tutor can take part in the training activity and is responsible in some cases for a follow-up programme to help trainees enter or re-enter the job market. The trainer-tutor's main role is to support and guide the students taking the course. The function as a trainer-tutor requires good teamwork and social skills as well as the ability to work independently, under the main responsibility of a project manager. Often a tutor is a younger person who is gaining experience and learning in order to become a teacher.

The trainer-teacher is responsible for providing the actual teaching, for the transfer of knowledge to students. He or she prepares the lessons and the material, evaluates the results of the students in order to adjust the training and the lesson material to the needs of each student. The trainer-teacher can take part in the analysis of training needs and setting up of the project. Depending on his or her work experience, the teacher is responsible for the coordination of group activities with other teachers, teaching similar projects. There is some autonomy related to the function, but it also depends on the other functions.

The qualifications required for these three different functions also differ, but the requirements for entering the profession are quite similar. First of all the teacher should have a diploma or a degree. If the teacher only has a diploma, he or she needs to have some work experience, preferably in the field of professional training. When starting as a teacher, there may also be some initial vocational training, namely a course to learn the basic skills for the job. However, there are no fixed regulations. When starting at their schools, some teachers receive a small amount of training organised by the headmaster, usually lasting only from 2 to 5 days. Otherwise, people wanting to become a teacher must attend courses privately, but there are also good courses on training teachers organised with the help of ESF funds.

People wanting to teach as consultants have more freedom in relation to formal requirements, because people with significant work experience, can be very good at conveying practical knowledge needed for entering a profession. These people are in high demand for Vocational Training Courses, most of which are funded by the ESF.

In addition to the differences in function, a distinction should also be made between teachers employed by public bodies and those employed by private agencies. The differences both relate to the courses and to the students they teach as well as to the way they are recruited and employed and to the extent to which they get continuing training as teachers.

As mentioned in section 2A, courses provided by public bodies are often aimed at unemployed persons, whereas private agencies frequently teach courses for companies or other employed persons. When it comes to recruiting there is one very crucial difference. Teacher-trainers employed by public bodies are employed in permanent positions, whereas teachers in private agencies are rarely employed full-time and usually only on a project-by-project basis. An agency will have project managers on its permanent staff who then employ teachers according to the needs of specific projects, e.g. which subjects are taught.

In public bodies, the teacher is recruited through a public examination (concorso). The selection normally takes into account the results of an entry exam and the experience the applicant has in relation to the job. The number of new teachers employed in the past ten years is relatively small due to the decreasing number of students, whereas in the past too many teachers were employed in the public sector. Continuing education for these teachers is a rarity, however, partly because the teachers have been secure in their jobs.

The situation for the public bodies and the teachers they employ is that the bulk of the teachers have been teaching since the 1970s, which means that the group of teachers are rather homogenous and ageing. Due to the lack of continuing education these teachers have, they are not quite up to date in their skills and methods, and the public system of vocational training therefore faces the challenge of re-qualifying the teachers.

Private agencies do not normally employ full-time staff. They normally employ trainers in order to manage each single project. A project manager, a tutor and the trainers will be employed according to the project and the subjects that are studied in each single course. Therefore, they have no permanent or stable body of staff.

The teachers employed in the private consultancies are generally younger, and come from either university or from the world of business consultants. A similar development is that some regions are creating agencies to manage their vocational education programmes. These agencies work in the same way as the private consultancies, with no permanently employed teachers, but only highly qualified managers.

Finland

In Finland, the principal or management at each institution decides which teachers to employ. Educational institutions providing adult education and training have their own full-time or part-time teachers. Most of these have expressly qualified as teachers of adults, and the majority of these specific adult educators teach at vocational adult education centres, vocational specialised institutions or other centres aimed at adults. In many institutions, however, the same teachers teach both young and adult students.

68% of teachers in vocational education are men, 32% are women. The average age is 42 years, and somewhat older (44 years) for teachers in initial vocational training. The average age is higher in those sectors that have existed longer, e.g. the metal working and construction industries or the hotel and restaurant business.

Requirements for the qualifications of the teachers are set out in a statutory order. These requirements are basic education, working experience and pedagogical education. Also the teacher should have a good command of the language used in teaching (Finnish, Swedish or English). The pedagogical qualifications can be acquired after being hired as a teacher, if the pedagogical studies are completed within a specific time limit. Most of the full-time permanent teachers have an academic degree as well as the statutory qualifications.

There are some differences between the educational fields. You can teach in *vocational institutions* without any pedagogical education if you have specialist vocational qualification and working experience. In the trades of both *business and administration* and the *social and health sector* the required qualification of a teacher is always a university degree or if this does not exist, the minimum requirement is a relevant polytechnic degree.

However, a survey done in 1998-1999 showed that only half of the teachers in vocational studies (47%) were fully qualified according to requirements, with some differences between sectors. 35% of the teachers lacked the pedagogical qualifications. This is partly due to the vocational training system reform and establishing the polytechnics in the 1990's.

The training of teachers in the vocational sector is described in legislation and in a statutory order. Within these limits each institution makes its own plans for the training of teachers, and the plans are accepted by the management of the institution that supplies the pedagogical training for the vocational teachers. There are 5 institutions in Finland providing pedagogical studies for teachers.

The length of the pedagogical studies is 35 credits (one credit being equivalent to 40 hours of study). It is divided into three main fields: pedagogical basis (10 credits), pedagogical training for teachers (15 credits) and training practice (10 credits).

Teacher training focuses on

1. Ethical and basic pedagogical skills
2. The ability to act
3. Social and interaction ability
4. Developer ability

The training of teachers and developing of teacher competences is a vital field of interest for the Ministry of Education. The Ministry has launched special programmes to improve the qualifications and competences of the teaching staff in the field of adult training and education. Furthermore, additional funding has been allocated to the institutions for training of teachers. An element in this is the possibility of in-service training for adult educators with normal qualifications who wish to qualify as teachers while teaching.

This growing attention on the skills and the training of teachers is related to educational policy reforms, changes in teachers' job descriptions and the advance of new information and communication technologies (IT).

England & Wales

Teachers in the Further Education Sector are recruited by the individual colleges. Many colleges also use agency staff as part time tutors and for emergency cover. The distribution of teachers in the Further Education Sector by age and gender is set out in figure 6.

Figure 6: Teachers in FE-sector by gender.

Age Groups	**Male %** N=27,430	**Female %** N=21,320	**Male & Female %** N=48,750
Under 25	0.1	0.2	0.3
25 –29	1.5	2.2	3.8
30 – 34	4.0	4.0	8.0
35 – 39	6.5	5.4	11.9
40 – 44	9.9	8,0	17.9
45 – 49	14.2	10.8	25.0
50 – 54	13.3	9.5	22.7
55 – 59	5.2	3.1	8.2
60 & over	1.6	0.5	2.2
Total	56%	44%	100%

(Based on: DfEE: Statistics of Education:Teachers in England and Wales, 2000 edition, table 53a)

51% of the teachers are graduates.

The role of the teachers in FE is not strictly defined, and it varies between colleges. If taken by the type of tasks that must be carried out besides the actual teaching, the division of labour at the college could be the following.

The examples below are based mainly on City College, Birmingham staff but in the main most colleges operate using this approach or alternatively they have middle management staff in place who deal with this as a part of their role with less involvement from teaching staff.

- **Curriculum planning**
  Planning of the curriculum is carried out by the Programme team leader, course team leaders and teaching staff on the teams. Programme team leaders will be guided by what management requires the college to provide in a given Programme area.

- **Programme of sessions planning**
  Teachers are responsible for the planning of sessions or series of sessions in line with the syllabus requirement.

- **Developing curriculum**
  The Programme team leader is responsible for developing the curriculum in their area. New ideas can come from teaching staff, course team leaders, students, trends in the local region etc. The feasibility of new courses will be assessed by the Programme team leader and put to management for consideration. Teaching staff can be fully involved in this if it is to do with courses they are likely to teach.

- **Contact with companies - in relation to the development of customized courses for companies.**
  Programme team leaders make contact with companies such as Care organisations that need NVQ underpinning knowledge, small companies that need IT training for staff etc. Course times and structure and content can be customized to meet specified needs if the course has an element of flexibility in its evidence requirement. Courses which offer an Open College Network (OCN) qualification can be made specific in its content for meeting a company's needs, and written up for validation. Many short courses or modules for long courses have been designed in this way. They can then be run at other times for other organisations with similar needs. Teachers can be involved in the whole of this process if they are going to deliver the courses planned.

At present it is not a prerequisite that those who wish to teach in further education must have a teaching qualification beforehand, although more colleges now require teachers to either have a relevant teaching qualification on entry or complete a course during their first year. This means that the expected qualifications among FE-teachers up till now in most cases will be a teaching qualification and some kind of subject or professional specialism. This will change by September 2001. From that date government will be providing funding for new teachers to achieve three levels of teacher training qualification. Funding will cover course fees, transport costs and part time cover for any loss of teaching time. There is already a rather elaborate system of courses and qualification opportunities for teachers and the three main levels of Adult and Further Education Teaching Qualifications that the teachers will achieve

already exist. The new thing is that government money will support the teachers' achieving the courses. The three levels are:

- City & Guilds Stage One 7307 – Integrated coursework and teaching practice
- City & Guilds Stage Two 7307 – Integrated coursework and teaching practice
- Certificate in Education/Post Graduate Certificate in Education (PGCE).

Stage One consists of 40 hours (minimum) study and practice, this may be divided into units of 3 hours in 12 weeks, plus 4 hours teaching practice. The course content focuses on classroom management like teaching and learning styles, group work, planning lessons and resources and assessing student achievement. Also teachers should learn to evaluate their own development as teachers and to observe and evaluate a teaching session. At the end of the course teachers should be able e.g. to produce session plans, a course outline, a report on an observed session and a self-evaluation of teaching development.

Stage Two consist of 120 hours (minimum) of study and practice. This may be divided into units of 3 hours but in 36 weeks, plus 12 hours supervised teaching practice. This stage introduces a more academic approach to learning to teach. It is delivered in five or six thematic modules (including principles of teaching and learning, course organisation and curriculum development, principles of assessment and evaluation of teaching role and teaching styles). At the end of the course candidates are expected to be able to

- produce a report on the application of theoretical principles of learning,
- draw up a scheme of work and analyse its effectiveness,
- prepare lesson plans for 30 hours of teaching,
- design, use and evaluate resources and assessment plans,
- conduct educational research, and
- evaluate lessons delivered and teaching materials and professional development.

Included in stage two is also an assessor training related to the assessment of NVQs (see Section A).

The third level is the Certificate in Education where the described Stage Two is required as entrance level. It is divided into four modules and is organised with five hours of teaching a week for 36 weeks. In addition teachers should have 120 hours of professional practice, which means that the course is in practice only open to those who have a position as a teacher already. Assessment is based on essays, reports and papers plus a professional portfolio. Teachers who already have a degree will follow the same course but will be awarded a Post-graduate Certificate in Education (PGCE)

The courses are run at Universities or franchised to FE Colleges. The Stage One course is the required minimum and the step from this level of teacher qualification to Stage Two is a giant one where the academic requirements become more predominant and teachers with a

professional background in the crafts rather than in an academic context tend to find it more difficult.

The development of the teacher qualification and training of teachers will depend on changes in the system. The Further Education National Training Organisation (FENTO), which is one of several national training organisations (NTOs) is working on development, quality assurance and promotion of national standards for the FE Sector. The Standards will be written into the teaching qualifications from September 2001.

Denmark

Teachers are recruited and employed by the individual schools. Even though they are part of a publicly funded educational system, the schools are independent institutions with their own board, management and budget. The general requirements of teacher qualification are set out in the regulation concerning the content and structure of the AMU-education. These regulations provide that teachers *"as a minimum should have qualifications within their specific field or trade that equal the level of a skilled worker, as well as at least 3 years of relevant and recent work experience"* (Regulation No. 921 (Oct.5th, 2000) '69).

In some cases the educational plan for a given course can contain more specific requirements of the teachers teaching a given course. In such cases it is the responsibility of the school's manager to make sure that the teachers teaching the course have the required qualifications, and to decide how further education of the teachers should take place. In that sense there is no particular formal certificate that the teachers should hold. It is for the school to make sure, and to be able to justify, that the qualifications of each teacher meet the requirements made by the Ministry of Labour (through the regulation and through the plans for the different courses).

The decentralisation of both recruiting and training of teachers means that a comprehensive profile of the corps of teachers is almost non-existing. The following builds on research made in 1994 (about teachers employed at AMU-centres) and 1997 (on teachers at vocational colleges).

Teachers at AMU-centres have significant labour market experience. More than two out of three have a minimum of 10 years' experience from the labour market prior to their employment as teachers. About half of the teachers left school themselves after their basic compulsory schooling (of between 7 or 9 years depending on the age of the teacher). In addition, most teachers have completed vocational training: 60% of all teachers have a background as skilled workers, while only very few have completed some kind of higher education. 16% have completed higher education of medium length (typically attending teacher training colleges or colleges for pre-school teachers).

The educational background of male teachers differs significantly from that of female teachers. A larger proportion of the female teachers have completed some kind of further education, while a larger proportion of the male teachers have received vocational training. This is

to a certain extent due to differences between the trades that predominantly have female or male teachers, the female-dominated trades typically requiring a longer education.

The picture is somewhat different at the vocational colleges. This mainly has to do with the fact that the vocational colleges offer programmes for both adults and young people. The youth programmes comprise the vocational training programmes, the vocationally-oriented upper secondary school (HTX and HHX) and short-term programmes of further education (e.g. within IT). Adult education is both further education at a theoretical level (e.g. in commerce) and further education much like that provided by the AMU-centres, but mainly targeted at skilled workers. In many cases the adult further education such as the AMU-activities has a rather marginal position at the vocational colleges compared with other activities.

The more complex picture of different types of education also implies a more heterogeneous teacher composition at the vocational colleges than at AMU-centres, but also that it is difficult to distinguish between the backgrounds of teachers teaching at the upper secondary education and short-term higher education programmes, and that of teachers teaching adult education programmes. In some cases teachers teach at more than one type of education, which blurs the picture even more. In a survey from 1997, 10% of the teachers at business colleges and 30% at the technical colleges indicated that they had been teaching at further education activities.

Students at vocational colleges have significantly more basic schooling (especially at the business colleges) than do students at AMU-centres. Education received after basic schooling also differs, as shown in the following figure:

Figure 7:Educational background of teachers at vocational colleges

Vocational education (per cent)		
	Technical college	Business college
Vocational training	32	10
Short term HE	26	2
Medium term HE	23	23
Long term HE	18	60
Other	1	5
Total	100	100

(Based on Aarkrog et.al, 1997)

The formal educational level at the vocational colleges is drastically higher than at AMU-centres, but at the same time more teachers here have no prior working experience apart from

teaching. An average of 25% (technical college) and 36% (business college) have no prior working experience.

Consequently, there are both a number of common features and differences between teacher qualification at AMU-centres and at vocational colleges. The common features are due to the fact that both types of school train people for the same labour market, and that the qualifications acquired by unskilled and skilled workers do not differ that much. As a result, schools are facing some of the same challenges in respect of content, teaching forms and social change.

The differences are first and foremost due to the fact that the starting points of the schools are different both relating to teacher qualifications and to the teaching and school cultures of the three types of schools: technical colleges, business colleges and AMU-centres.

C: Continuing education for adult vocational teachers

As described in 2B, the pedagogical qualification of adult vocational teachers often takes place after the teachers are employed. Except from in the UK where pedagogical qualifications are to an increasing extent required on employment, pedagogical qualifications are required during the first few years of employment. It can thus be said that the line between initial training and further (or even continuing) training of teachers is blurred. At the same time, the challenges faced by the educational systems are focused on the continuing education of teachers since it is unreasonable to attempt to meet change exclusively by means of recruitment of new teachers.

Italy

As was the case in relation to the basic pedagogical training of teachers, there is no national system in Italy, and there are no formal requirements for the continuing training of teachers. Within the public continuing educational system this means that there is a large qualification gap because many of the teachers have been employed for many years without completing any kind of continuing training.

However, nearly all regions have their own training systems for teachers, but the differences between regions are considerable.

Teachers usually receive training when changing job function or workplace. Continuing training is often aimed at developing managerial skills and learning how to analyse training needs - both in relation to the local area and in relation to the individual participant. In some cases, collaboration between private and public course providers may function as continuing training for public-sector employees since private consultants often bring more recent experience from the labour market.

In some regions and in some parts of the public sector, efforts are being made to catch up with this deficit, but the task is considerable. A pilot project in the field of continuing training has for instance been started up using new technology and the teaching techniques for distance learning involving all vocational teachers in the region of Campania. If this project is successful, it will be extended to cover all of Italy.

In other words, the public sector is paying more attention to the need for further and continuing training of teachers, but the task is enormous.

Private course providers do not require specific qualifications from teachers nor do they verify such qualifications, neither the professional nor the pedagogical ones. Qualifications are regulated by supply and demand, since teachers need to hold the qualifications necessary to stay competitive. Accordingly, each teacher is responsible for his or her continuing training – both relating to initiative and financing. Some continuing training courses are financed by the European Social Fund (ESF), but only course fees are covered. The teacher has to finance his or her own time.

Many of the teachers who work for private agencies or on a free-lance basis may attend courses for teachers offered by the Italian Organisation of Trainers (AIF) and other private agencies. The precondition for participation in these courses is a degree or teaching experience. The content of the course is:

- Analysis of training needs
- Elaboration of a project
- Management of a lesson
- Evaluation of the activity

After this course, the teacher gains access to continuing training, to seminars and meetings, but also to other kinds of supporting facilities such as magazines on the subject, web sites and training in distance learning.

On the one hand, the course appears to be a basic course (both because it is a precondition for other elements and because of parts of the content), but on the other hand it appears to be a continuing training course since teaching experience is a precondition for participation.

Finland

The training provider, typically a school, is responsible for the continuing training of teachers, but since the resources allocated for continuing training are limited and have been cut in recent years, the scope of continuing training is modest. According to the teachers' collective agreement, there are 195 working days a year and 5 days available for individual training and personal development. Schools have attempted to solve the problem of scarce resources by offering teachers a very limited number of continuing training courses or by organising special courses, with each school pooling all of its continuing training resources.

As a result of the scarce resources for continuing training, many teachers spend their own time and money on such courses. This is true in relation to the permanent teaching staff, but even more so in relation to teachers who are not permanently employed or who have secondary jobs with private training providers.

The National Board of Education offers centralised continuing training, and universities and the polytechnics also offer continuing training programmes for teachers. The content and scope of these courses and training programmes vary – from short 2- or 3-day courses to long programmes of 20 to 40 credits (one credit equals 40 hours of study). Continuing education at universities and polytechnics may lead to a certificate, corresponding to the first university level.

Finally, a number of training courses for teachers are organised outside the formalised educational system. Some of these courses are organised by the trade unions (vocational unions), and some are organised by private consultancy firms. In both cases, the individual teacher has to take the initiative and pay for the course, which is often very expensive.

However, in some instances the teachers' trade unions organise continuing training courses, and such courses are often less expensive. In the same way, teachers will sometimes be able to attend continuing training courses offered by commercial organisations and training providers. In some cases part of the training cost may be covered by the trade union, local or regional authorities, ESF, Leonardo or some other project funding. In most cases, the teacher is obliged to pay the expenses him/herself, especially, if the teacher is either a part-time teacher, non-organised or both.

However, the contrast is considerable between on the one hand the limited opportunities for further and continuing training and on the other hand the need for increased qualification of teachers ascertained by recent research, and which is caused by educational changes.

England & Wales

As mentioned in 2B, England & Wales has quite a comprehensive grid of further and continuing training opportunities for teachers of which the first two levels may be perceived as initial training. The third training level corresponds to the first university level qualification.

Teacher qualifications are regulated just as all other qualifications, namely by means of the City & Guilds for Stages 1 & 2 and the Universities for the Certificate in Education. New standards will be set by the National Training Organisation (NTO), which in the case of adult training is the Further Education National Training Organisation (FENTO). In 1999, FENTO set up standards for teachers in the further education training system. It is up to the educational institutions (colleges, sixth form colleges, etc.) to make sure that teachers meet these standards. This is partly done by means of internal evaluations and procedures and partly by means of external evaluations and teaching qualifications.

In other words, to a high extent the qualification and development of teachers take place in connection with evaluation and monitoring activities, some of which are offered by the educational institutions while others are external. The internal evaluations and monitoring activities example at City College, Birmingham consist of an annual interview with a senior member of the staff. The targets for the past year are examined to see if they have been fulfilled in respect of development activities, changes in qualifications, etc. - and a professional development action plan is set up in relation to the strategic goals of the educational institution for the next year. At the same time, management attempts to compare teacher qualifications with the new FENTO standards as a guideline.

Until April 2001, the external evaluation has been carried out every fourth year by the Further Education Funding Council. Inspectors observe and grade the quality of training and learning against a set of criteria. The results of the educational institution are published, but not the grading of the individual teacher. The Inspection will now be carried out by the LSC as part of the Common Inspection Framework through the Adult Learning Inspectorate and OFTSTED.

In other words, the British system is characterised by being very developed in respect of its educational structure, the setting up of national standards for teacher qualifications and to the evaluation and monitoring of teacher qualifications. Moreover, in the UK a number of new development are taking place, which require that teachers receive further and continuing training. These are mainly related to IT and the development of basic skills, but we will revert to that in part D.

Denmark

The Danish system providing further and continuing training for AMU-teachers has not been the same for teachers working at AMU-centres and teachers at vocational colleges. Traditionally, teachers working at AMU-centres have been offered more continuing training, whereas the offer has been more limited for teachers at vocational colleges. On average, an AMU-teacher spends five weeks a year on continuing training. Although the right to continuing training is not a part of teachers' collective agreement (as it is in Finland), many AMU-centres have made local agreement giving the teachers time for their own training per year. How much time will get differs between the individual centres. No such agreement applies to vocational colleges.

Continuing education is provided by the National Labour Market Authority (AMS) and by the Board for Further Education. The education provided by AMS is divided into three types: further pedagogical training (focusing on teaching literacy and writing), IT courses (both the teachers' own ability to use IT and the use of IT as a teaching tool) and training in so-called general subjects, a special group of themes (or subjects) in the AMU-courses aiming at the participants' knowledge of general matters in the labour market such as the working environment or organisation in the labour market (including the organisation of work and

technological change). These courses are usually organised specifically for teachers in the AMU-system and organised and delivered by DEL (the Danish Institute for Educational Training of Vocational Teachers).

Training provided by the 15 national retraining councils focus on the specific sector or trade the council is responsible for and offers further education for teachers to improve their knowledge and skills on technical or other trade-specific issues. The training will frequently relate to the specific courses to be taught by the teachers.

In addition, both AMS and the retraining councils hold national conferences related to broader fields of the system, but still with a focus on a limited field (e.g. teachers teaching the general subjects or teachers teaching courses in welding).

However, the reforms of the 1990s mentioned in part B led to changes in the continuing training for teachers. Firstly, economic changes have resulted in a reduction of continuing training. Teachers have to teach more lessons per year, and schools find it harder to finance the training of teachers.

Secondly, the adult and the continuing training system has undergone a general development. A number of training programmes have been established, making up a system in which a teacher may qualify from the initial pedagogical training level via a diploma and a master degree to a level just below university level. At the same time, the number of institutions offering training programmes has increased. The increase in the number of continuing training opportunities also means that some teachers finance their own training, but traditionally the employer (i.e. the school) finances the continuing training of teachers.

Thirdly, as a consequence of the changed regulation of teacher qualifications, the schools decide to a much greater extent what kind of continuing training a teacher needs to complete. Schools conduct annual interviews between the manager and the teacher (Personal Assessment Interviews) where further and continuing training, among other issues, is discussed. Schools need to be able to substantiate that the teachers teaching courses are actually qualified, but there are no longer any regular courses or training programmes that teachers have to complete to obtain approval.

Another aspect of further and continuing training for teachers in Denmark is the use of development projects as an informal way of qualifying teachers. Some schools and some teachers have been involved in such projects, but at the same time this way of qualifying teachers is being monitored closely since it integrates the qualification of teachers with the development of the organisation. As part of the development project, teachers collaborate with for instance other teachers for the purpose of developing new courses, or with local companies, perhaps together with other staff groups from the school. The idea is to develop the organisation and improve teacher qualifications at the same time. Such qualifications may spread to other teachers as, instead of taking place at an educational institution, the activity is an integral part

of the daily life at the school. Some schools have developed a model for initial and continuing training where part of the training programme consists in carrying out a development project at the teacher's own school.

D: Changes and challenges

The systems of all four countries have undergone or are undergoing great change and reform. The reason is that all four countries have recognised that training programmes need to change form and content considering the challenges in the national and international labour markets that the training programmes are targeting. As a consequence, the challenges and changes considered significant by the four countries in relation to teacher qualifications have common features. At the same time, there are some differences relating to traditions and differences in the areas that are considered essential at national political level. In this part, we will briefly outline the areas to which each of the four countries attaches particular importance.

Italy

On the basis of the picture drawn in the preceding parts, it seems clear that the Italian system is undergoing great change and development, although the situation differs from region to region. The national laws governing vocational training allocate an increasing part of management and planning of training programmes to the regions and the provinces. The regions therefore need to develop and improve an old and quite inefficient system, and it also increases the pressure on the teachers already in the system who need continuing training. At the same time, the regional divide between the rich and poor parts of Italy has increased due to the allocation.

Another feature is that the local systems are realising that they have to introduce new concepts, and that they cannot simply concentrate on the management of courses. The local systems also have to contemplate activities of orientation, organisation of work experience in the firms, one to one personal consulting of students, distance learning and innovative techniques. In short: open up to new concepts and new content in the courses. Due to new technologies the changes of the vocational training system are implemented at greater speeds, and the need to bring teachers up-to-date with the changes in society and in the companies is increasing.

Due to these changes, the system is facing some challenges. Firstly, training programmes not only need to respond to the changes in the labour market. They have to act and anticipate trends and changes. The abilities of the system to analyse developments therefore need to be strengthened. Secondly, it is necessary to increase the interaction between schools and companies, which may support the first challenge. And finally, a more integrated and efficient teacher training system needs to be established.

Finland

Just as the others countries, Finland is facing challenges in a number of areas. The National Board of Education has set up a number of political objectives for the coming years that re-

flect these challenges. The most central element is lifelong learning. Lifelong learning needs to be seen in several contexts.

Firstly, in connection with the ageing labour force, which requires special forms of continuing training. Secondly, lifelong learning is a general need and obligation for a labour force in a labour market where qualifications need to develop continuously to meet the rapid pace of change. In this context, lifelong learning not only means participating in continuing training on a regular basis. It also means strengthening the learning aspect in connection with the workplace. And finally, it could mean supporting self-motivated education and training.

To create a more coherent educational policy, to develop teacher qualifications and make the teaching profession more attractive are other objectives. And finally, some objectives relate to technological changes, particularly basic IT skills and industrial IT skills.

As a result of lifelong learning and the other challenges, teachers have to fulfil new requirements. The development of teacher qualifications is thus also a central challenge to the system. First of all, training programmes need to be improved and become more coherent. It is necessary to think of how initial and further training can be integrated, and how the connection between theory and practice can be improved. One way could be to strengthen the collaboration between universities and professional high schools.

Planning of curriculum and evaluation of training must be essential parts of teacher training. In the same way, personal development and training through participation in various training activities financed by the employer need to become a natural and integral part of a teacher's job. For teachers, too, lifelong learning needs to become a continuum of various activities. But at the same time, it must be possible to adjust teacher training to the needs and wants of the individual teacher.

In parallel to these changes, the development of IT qualifications is essential - IT as part of teaching and as a teaching tool - but also the increasing internationalisation and emphasis on training quality.

England & Wales

The UK is undergoing substantial change both in respect of the management and offer of training and in respect of content. Some of these changes have already been mentioned.

An important change is the establishment up of the national Learning and Skills Council (LSC) and the local LSCs which will lead to great changes relating to the monitoring of training programmes and the allocation of resources. LSCs will play a more active role in the distribution of training activities between different educational institutions, which puts increasing pressure on institutions since they have to plead their case and prove quality. The development and monitoring of quality become central to colleges.

In addition, FENTO's setting up of standards and qualifications for teachers (already set up) and for the management and other groups participating in the training programmes (being set up) have an impact on the daily life of institutions and teacher qualification. Institutions need to make sure that teachers teaching courses work according to the standards, although FENTO does not say exactly how such qualifications should be achieved by existing teachers.

At the political level, the FE sector attracts a good deal of attention. The British government has, in the words of David Blunkett, Secretary of State for Education and Employment, "put learning at the heart of its ambition". And elsewhere he says: "The fostering of an enquiring mind and the love of learning are essential to our future success". The attention has resulted in a number of initiatives whose general theme is to create broader and more equal access to continuing training and to facilities that may support continuing training. Since the June 2001 election, Estelle Morris is now Secretary of State for Education

One of these initiatives is "Learning at work" which focuses on the possibility of learning in the workplace, and where large and small companies differ from one another. Some large companies have set up learning centres in the workplace and are deeply involved in training programmes.

Another initiative focuses on the use of new technology in further and continuing training programmes. The most comprehensive is the University for Industry (UfI) and the Learndirect and UK Online Centres. UfI is aimed at stimulating lifelong learning in companies and with individuals. Focus is on access to facilities, and efforts are being made to establish learning centres in companies, in libraries and schools etc.

Another element is the National Grid for Learning (NGfL), an architecture of educationally viable content on the Internet and a programme of developing the means to access that content from schools, libraries, universities and elsewhere. The grid partly provides access to the Internet, partly makes content available on various web sites.

A third element is the National Learning Network. Like the NGfL, the NLN is both hardware and content. The NLN consists of support centres, the extension of broadband access and learning material which is being prepared and made available. The NLN is also working with a ILT champions programme, where champions will bring ILT-related ideas and inspiration to schools and to the individual teachers. The idea is to let colleagues at the same level function as champions instead of implementing changes from above or from the outside.

Another initiative that also aims at improving the access to education and training is a basic skills programme that will support the students who do not master the basic skills such as literacy and numeracy. Part of this initiative is a comprehensive teacher training initiative, where the first step is to train teachers who will then disseminate qualifications by training others.

In general, a number of initiatives have been taken in the UK, which focus on IT and ILT. Due to these initiatives teachers experience an increasing need for qualification. And at the same time, the educational institutions are facing changed conditions.

Denmark

Over the past decade, the AMU-system has witnessed a number of changes in the regulations and legislation forming the framework of the system. The latest change was very comprehensive and took effect on January 1, 2001. Some changes have to do with regulations concerning the vocational training system itself, while others are related to changes in labour market policy aiming at reducing unemployment through training or other activities.

In 1999, the Danish parliament adopted measures to limit spending on the training of unemployed which caused substantial cuts in the activities at the AMU-centres and vocational colleges from 1998 to 1999. The activity is still 25% higher than at the beginning of the 1990s. However - the immediate cuts have placed the schools under economic strain and caused teacher dismissals. It means that the schools will have to look for alternative markets and types of activities, but also that the competition between providers is getting tougher.

Over the last few years, the amount of money spent on training of teachers has decreased. Most likely, this is related to the economic pressure the colleges and centres are under, but part of it has to do with changes in the basic pedagogical education of teachers. Also it should be noted that the time the teachers have spent on their own preparation for teaching has increased.

The pedagogical training of teachers has changed. The introduction of the Training for Adult Educators (VUU) as the main road to the pedagogical qualification of teachers in the AMU-system seems to emphasise the theoretical aspects of teaching more than the previous system did, just as training has now been integrated in a large further educational system, and therefore also can be used as a basis for further studies. The question is if this change also indicates a shift in what qualifications are given priority in the recruitment and education of teachers: the subject disciplinary knowledge or a more broad and in a way more academic qualification that stress the analytical skills of the teacher.

Over the past decade the way the courses have been described has changed from very detailed guides that the teachers were obliged to follow to a more open description in a kind of out-come based system. This opening of the description has continued and now there need not be a pedagogical guide when a new course is developed. The general picture is that the control of the course content has been decentralised to the retraining councils and to some extent to the schools and teachers.

This, combined with a general change in the way the public sector perceives itself, gradually turning into and behaving like a private enterprise, has increased the attention paid to quality

control, evaluation and monitoring. It is a trend still to evolve, but the first signs have already emerged.

This is a trend that is being supported by the opening of the market to new providers. Previously, the courses could only be provided by vocational colleges or AMU-centres. But in the mid-1990s, the market was opened, allowing private companies or enterprises to become course providers. Therefore there is growing attention on the approval procedure for new providers, among other things because important decisions, such as recruiting and securing the qualification of teachers, are left to them. Quality control will take on growing importance, and the schools are expected to have to focus more on their ability to document activities and the quality of the courses they provide.

As to the training programmes, more people have become interested in the interaction between training activities and practical work in the workplace. This applies to how training activities at schools may be connected to participants' daily work and also the learning that is part of work. Alternating training and learning through practice are two essential concepts in that connection.

3. Discussion: conditions and opportunities for teacher qualification

3.1 Common characteristics of the four countries

First of all there are significant similarities between the four countries in terms of the many reforms and changes that have been or are about to be implemented. All four countries have experienced changes to their systems in relation to mode of control, and for several of them the composition of the group of students participating in the education has also changed. The share of unemployed participants has decreased and that of participants who are employed has increased. As a result of the changes and the reforms being planned or implemented, the teachers and the system in general are facing a situation characterised by openness but also by insecurity. The fact that change is necessary has been acknowledged, but uncertainty and insecurity are also related to the change, both regarding the content of the teachers' work and the changing demands regarding their qualifications. At the end of the day, there could indeed be insecurity about keeping the job as a teacher altogether.

Changes in the vocational training system should be understood as the way that the four countries and the systems try to meet the challenges they are facing at the turn of the millennium. The challenges are related to changing economic conditions, globalisation and international collaboration and competition. And they are related to changing technologies, including changes in the organisation of work. The changes represent a major challenge for the four countries when it comes to the need for further education – both of the labour force in general and of the teachers who are to teach. Change happens quickly – so quickly that it may seem difficult to keep up.

Obviously, each country's approach to meeting these challenges will depend on its starting point, but they still share a number of characteristics: first and foremost *making education increasingly flexible*. All four countries are trying to work out a way to adapt educational programmes to suit company needs, both in content and organisation of the courses. For instance in Finland there have been voluntary reprentatives from the labour market parties in the management boards of some adult traning institutions. Denmark has even seen initiatives to adapt education to individual needs, rather than planning and designing it beforehand. If this trend continues it will mean that education becomes not only flexible, indeed it is being individualised.

The attempts to make education more flexible can for instance be seen through still more decentralised course design. All countries are trying to work out a way to meet the companies' demands for changes to training programmes. The first step has been to change course organisation, since adapting the content to some degree collides with national (or at least: central) merit. If the course content is to become even more flexible the modes of control will also have to change, and on this issue the countries have taken different steps. In the UK, the establishment of the Learning and Skills Councils (LSCs) is one way of changing

the mode of control without the central authorities relinquishing control altogether. In Italy (and to some extent in Denmark), regulation is increasingly market driven. This means that the educational institutions able to sell their products (i.e. education and courses) can continue on the market. The institutions that are not able (or fortunate enough) to adapt the design and content of their courses to the needs of the companies will slowly vanish.

Increasing flexibility, decentralisation and the general need for further education in society as a whole have also led to *changes in teachers' tasks.* The exact changes will again depend on the starting point and the choices made by the systems. An important issue in this context is whether the educational systems maintain a clear distinction between different discrete functions. On the one hand, we have the people at the schools who work with the companies to analyse and formulate educational needs and strategies for the employees, and on that basis set up content and form of the education or course. On the other hand, there are the teachers who will be teaching the courses. Another possibility would be to merge these functions, meaning that teachers will increasingly take part in all three functions, analysis, planning as well as actual teaching. The alternatives are very clear in both Italy and Denmark. It is a choice that holds both promises and threats for those working at the schools.

But the demand for closer links between the schools and the companies in itself means that the teachers face inevitable change in their work. To create the link between teaching the courses and the everyday life of the participants (perhaps even teaching at the company site rather than at schools) teachers will have to be adaptable and open for change in their classroom management, rather than just drawing on their routine from years of experience. The teachers must be capable of analysing and adapting the pedagogical decisions they make. They need to have analytical skills in their classroom management rather than craftsmanship alone. In addition, teachers may have to adopt new ways of teaching in order to meet the requirement of establishing a link between the course life and the everyday working life of the course participants. This could involve ways of teaching, with the participants using and reflecting on their experience. In other words, adapting the course to the participants who are actually present, rather than going through a fixed course content. Or it could be that the teachers are capable of adjusting the course work to the individual participant, depending on his or her background and prior knowledge.

Finally, making the education more flexible relative to the expectations and preconditions of the participants will also lead to changing modes of cooperation between the teachers. They will have to collaborate, sharing their experience and analyses, perhaps even doing the analysis together in order to make the adjusted courses work. The teachers must see *sharing* as a basic feature of their practice rather than working on their own in isolation.

It is by no means certain that this will happen just like that. In Italy, for instance, it collides with the extensive use of temporarily employed teachers, who are hired for a specific course, but with no permanent relation to the school or their colleagues. Instead, a permanently employed project manager is in charge of ensuring course continuity. In Denmark, this

clashes with the view held by a large proportion of teachers that the main quality of being a teacher is the autonomy and the possibility of organising ones own work. These teachers will not necessarily involve themselves in closer teamwork or even in sharing their experience.

Next to these changes that are linked with the increasing flexibility of the education, the implementation of ICT (Information and Communication Technology) and ILT (Information and Learning Technology) also pressures the systems to change in several ways. In the short term it will become a required tool for the teachers in their preparation of the courses as well as in their actual teaching. This could be by using interactive programmes on CD-ROM or by having participants search for information on the Internet.

In the long run, more extensive change could happen. Distance learning is one of these changes that could have significant consequences for teachers. It is still very unclear how different countries intend to move along the lines of ICT, ILT and distance learning. In the UK, a very ambitious and extensive plan has been formulated by the government on this issue. In Italy, this is a factor that the education and the teachers will have to take into consideration, but the decentralised control means that there is considerable differences between regions as to what extent computer-facilitated teaching has been introduced. In Finland, the introduction of and qualification to work with IT, both as IT-working skills and IT-basic skills, is acknowledged as one of the major challenges the educational system is facing. Even in Denmark, IT is a field that gets a good deal of attention and in which further education for teachers is already happening, but the differences in the actual integration of IT in teaching are still considerable.

Regardless of the current situation, IT is a line of development that will be of the outmost importance in the years ahead, and it is a development that presents an enormous pedagogical challenge as well. Firstly, there are the qualifications of teachers. Most of the teachers in the vocational training systems have no basic IT-skills from their own educational background or work experience, and they are not likely to have any primary experience with how ICT is used in the workplace (consider the average age of teachers in Finland and the fact that a large proportion of teachers in Italy were hired in the 1970s.) As a result, there is a rather large need for basic IT-skills to bring the teachers up to par.

Secondly, the consequences for the pedagogical design of the courses and education when ICT and ILT hold a more predominant position in the teaching and learning and when distance education becomes more widespread, need to be reflected on and discussed thoroughly. If participants could just as well find information or work on assignments at home, then why show up at a school? What is the significance of a teacher, of a common room for learning (such as a classroom) or a workshop, when you can communicate with the teacher via email or in conference systems and when you can create a virtual classroom?

The changes common to the four countries clearly indicate a development that challenges both the content and the organisation of the teachers' work. This is a development that could

seem threatening. It contains a good deal of insecurity and anxiety for those involved: will the work disappear, what demands will I be facing in relation to teaching and to my colleagues, and am I at all capable of meeting these challenges? But the development also contains opportunities for the teachers: chances of working with a broader scope of tasks and functions, chances of creating coherence in the work and to enter mutual learning processes with colleagues.

Whether the development is experienced as threatening or promising will depend on how the systems have functioned previously, and how they decide to handle the challenges. What is also important is what background the teachers bring with them in their work as teachers. What educational background? What work experience? What qualifications do they bring with them to their job as a teacher? An issue of some importance in this matter is whether the teachers come from a predominantly academic background or if they are based in a craft or a profession with emphasis on practical craftsmanship. This will have an impact on what basic qualifications the teacher brings with him or her in relation to work, but also on how the teachers see and interpret themselves as individuals. To what is the basic work identity related: is it the craft, is it the analysis or is it the teaching or perhaps something else?

If the elements of the courses and the teaching that relate to the mastering of a craft have decreasing importance compared to the pedagogical aspects (e.g. adapting a course on the basis of the analysis of participants' interests and experience), then this change in emphasis will be experienced differently if the teacher has a basic work identity related to being a skilled craftsman or if it is related to analytic competence and pedagogical skills. On this issue, a teacher's background is of great importance.

3.2 Differences in the present situation

The first difference to be mentioned between the four national systems is the level and mode of centralisation. All four countries have some kind of central control combined with an element of local influence. But they have different modes and appearances.

In the Italian model there is rather strong central control of the course content. The fact that syllabuses are approved at central level indicates that not only the general curriculum but also its details are under central control. The local influence is concentrated on teacher planning and implementation, rather than on selection of content.

The central control of the content is a part of the tradition that the educational system is regulated by the Ministry of Education. However, the central control of education is not as rigid when under the auspices of the Ministry of Labour, and there are indications of further decentralisation. The Italian system does not explicitly describe teacher qualification requirements in terms of specific training or specific qualifications, although publicly employed teachers are recruited on the basis of an examination. Teachers in the private sector are to a greater extent hired directly on the basis of their qualifications compared to the

functions they are to perform. In that situation there is some degree of local influence on teacher qualifications.

The Italian system with its central control of content is quite similar to the Danish system in about 1990. But with the changes made to the system in the beginning of the 1990s more of the content control was left to the schools. Central control in Denmark is now executed by specifying the skills and competences that the participants are to possess after the course, rather then specifying how the teaching should be done – both at content and teaching level. This leaves room for the different schools and teachers to plan and select content that fits more closely to the specific participants in a course or to the local labour market. The sole requirement is that the participants acquire the specified skills and competences through the activities in the course.

The situation is almost the same for teacher qualifications. Currently, there are some requirements as to the education of the teachers, but the school employing the teacher is free to interpret both the demand and the qualifications held by the teacher. This provides the school with an opportunity to adapt the qualifications to its more specific needs. On the pedagogical qualifications the regulations refer to a specific education, but without this education being compulsory. The school can claim that the teachers hold similar qualifications, in other words it is still a matter of interpretation.

Thus the central control in Denmark is executed through setting up a framework and required competences for acting or doing something, but the interpretation and filling out of this framework leaves room for local interpretation.

In the Finnish system, legislation and statutory orders formulated at central level also set out teacher qualification requirements. The requirements include educational background, work experience and pedagogical training, but as in Denmark it is left to the school managements to meet the demands. The quite large proportion of Finnish adult vocational teachers who still do not meet the required qualifications is an indication that at local level the demands are in practice adapted to the different needs and possibilities in the given region. The mode of control in that sense is ambiguous, since on the one hand it has the central element, while on the other, in practice, it leads to local variations and interpretations.

As in Italy, course content in Finland is described at central level, although some courses are more detailed in their descriptions than others. Courses leading to a formal certificate are rather detailed, while others – for instance courses for unemployed – leave more room for the teachers and schools in the planning and setting up of content. The introduction in Finland of competence based examination can be seen as a shift from the centrally described courses to more local interpretation of skills and competences that the courses should lead to.

In the UK, central control is executed through the system of describing qualifications, that is, by describing competences that the participants (or workers) should hold – the NVQs for

example. The system is elaborate and comprehensive. Furthermore, it is accompanied by an extensive use of evaluation and monitoring. It is a mode of control that on one level leaves a good deal of room and freedom of movement for the colleges and the teachers, but it also provides a rather strong implicit or tacit regulation of how the colleges actually make use of this freedom – thus restraining it. The establishment of the Learning and Skills Councils (the LSCs) indicates growing central control on course content, since the LSCs are going to point out specific institutions that they regard as capable of providing a given educational programme, but in this they also have a more direct say in what content is actually provided.

The changes in the four countries all touch on the relation between central and local levels of control, regarding course content and organisation as well as teacher qualifications and its organisation. Denmark is moving towards a system like that of the UK, with its combination of a free market and a central public or semi-public institution for monitoring and evaluation. The mutual trend between the systems is that of decentralisation, which again puts the national systems in the dilemma of keeping some kind of central influence (for instance to secure national merit for the courses) and giving more room to the market and the local differences.

Precisely the control of the market and a stronger emphasis on the adjustment to the interests and needs of specific companies is another mutual trend in the countries, but because the systems have different backgrounds and traditions this trend also presents the systems with different challenges and difficulties. In Finland and Denmark the challenge is not only how to maintain a system of national merit along with a more flexible approach to adapting education programmes, but also to get the schools to function as companies in a market. In Italy there is both regionalisation of education and adaptation to company needs. But next to the central control of syllabuses the Italian system has already for some time been moving towards a more market-controlled system, including private consultancies and course providers. Market orientation therefore is a well-known phenomenon in Italy and Finland as well, while the UK and Denmark are only about to experience it. At the same time, Italy has already experienced the dissolution of common frames (e.g. in relation to teacher qualification systems) that in some cases follow the more regional and market competitive model.

Therefore, the situations in the four countries hold differences in the challenges to be faced, beside the mutual challenges mentioned in section 3.1. Finland and Denmark both point to changes in the group of participants as a future challenge. In Finland focus has been set on the increased share of older workers in the labour force needing further education or perhaps even retraining to a different part of the labour market. In Denmark, the challenge to AMU-centres is the attitude of especially the young people of the labour force who both act differently and have different expectations regarding both form and content of the courses. The younger students represent a major challenge for the AMU-centres. In other countries (e.g. Italy) young participants already make up a large part of the students. In the UK, there is broader focus on the general need to raise the level of education in the population as a whole. In Italy, especially, emphasis is on the difficulties related to regionalisation.

Last – but by no means least – there are differences in the educational background of the teachers. Though it is difficult to say anything more precise or specific about the educational background and the work experience of the teachers employed in the systems, due to the lack of registration of such information, differences can be traced, both in the official requirements to teachers and the descriptions provided by the four partners of this project. One difference involves the extent to which formal school education is emphasised in the formal requirements for teacher qualification. Or put another way: what kind of weight is given to craftsmanship as opposed to academic skills? In Italy recruitment of teachers draws increasingly on teachers with an academic background. Both the Finnish and the Danish regulations tend to emphasise craftsmanship in adult vocational institutions, although Finland also has specific requirements for formal schooling. In the UK one must be a professional and in that respect it could mean that an academic education is required, but not necessary at the moment.

In the UK, Finland and Denmark, the educational background of the teacher is mainly indicated by the type of school he or she is employed at. In the UK most courses and educational programmes are provided at FE Colleges or at schools targeting young people about to leave school. These institutions would be more likely to recruit teachers that in addition to a background in a profession or a craft, would have formal schooling beyond basic schooling. Likewise, a part of the Finnish schools both provide education for younger students and for adults, and some teachers teach both groups of students. The combination of teaching young and adult students would tend to give more attention to school (or academic) education.

This pattern can be found in Denmark as well. Most AMU-courses are provided either by AMU-centres or by vocational colleges, the AMU-centres being specific schools for adults and aiming at crafts or similar more practical sectors, while vocational colleges provide education for both adults and young people. The teachers at the AMU-centres are predominantly recruited on the basis of their craft rather than their schooling, a larger proportion of the teachers at vocational colleges would have some kind of higher education.

From the very insufficient data available it seems that Danish teachers generally have significantly shorter schooling than their colleagues in the other countries, and with academic skills being more common in Italy and the UK.

3.3 Teacher qualification systems

All four systems share one important and predominant feature: the modest pedagogical qualifications and the further qualifications required of the teachers. None of the countries require pedagogical qualifications at the time of employment, but there are also slight differences between the four. In the UK many institutions now require pedagogical qualifications on employment. In Finland and Denmark teachers must take pedagogical

training within the first couple of years as teachers, but surveys made in Finland show that not all teachers meet this requirement. In Denmark, surveys from 1994 and 1996 show that most teachers (between 80 and 90%) take the pedagogical training required. In addition, quite a few of the teachers in Denmark have some kind of teaching experience prior to employment. In Italy the picture is blurred due to the lack of a single common system for teacher qualification. There is some teacher training, usually in relation to a change of jobs or a change of function, and there does not seem to be a basic pedagogical education as such.

This limited attention to the pedagogical qualifications of teachers is likely to be seen as a consequence of the vocational training paying most of the attention to the presentation of craftsman skills and competences. As stated in the Finnish contribution to this project: "The teacher in vocational training is an expert in working life who is teaching future experts for working life". This fundamental understanding of the vocational training system means that priority has been given to recruiting experts in working life to become teachers, rather than recruiting experts in teaching. This type of priority has been possible because the rather close control of the courses has required relatively few pedagogical qualifications of the teachers except from some kind of classroom management. The teacher has not needed to reflect on the selection of content etc. But the emphasis on working life rather than pedagogical expertise makes sense when the school experience of many of the students is taken into consideration. Many of the adult students can be expected to have rather mixed if not bad memories and experiences from their basic schooling, and would therefore prefer being taught by a craftsman rather than by a 'school teacher'. There are however several indications that the educational systems are gradually putting more emphasis on the pedagogical qualifications of the teachers simply because the future challenges of the systems will require the teachers to increase their pedagogical skills and competences.

The systems available for teacher qualification are different. The UK has the most elaborate and comprehensive system. In a number of educational programmes, the final modules involve some practical teaching that de facto requires the participants to be employed as teachers along with their studies. In addition and in relation to the systems of qualification, there is a system of monitoring, supervision and documentation of teaching and skills (for instance by use of portfolios).

The Italian system is less developed in this more systematic sense, especially when it comes to the publicly employed teachers, but the country also has pedagogical training organised in the private sector and provided by consultancies, professional organisations etc. These courses are largely aimed at developing teachers' managerial skills and not so much the skills more specifically aimed at teaching. Also there are privately provided courses where the teachers participate on their own initiative. Further education for teachers in Italy is growing, and one of the fields being developed is educational opportunities in the field of ICT and of distance learning.

Both Finland and Denmark have relatively comprehensive teacher qualification systems. In Finland, however, there is a gap between the supply and demand for further education of teachers, and initiatives have been taken in order to expand the opportunities for qualifying simultaneously with teaching. But apart from the supply of further education not meeting demand, there is also a problem of a lack of resources for the further education of teachers. This means that quite a number of teachers spend time and money of their own to qualify further, but also that their training is not organised in relation to the school where they teach.

In Denmark, the further education system for teachers is changing from being primarily designed and provided by the central authorities to being regulated by broad descriptions and frameworks and then designed and provided at local level. This makes the form and content of the further education more diverse, and it makes it easier to fit the educational activities to needs and conditions at the different schools. It is unclear how many Danish teachers finance parts of their pedagogical training themselves, but the tradition and the culture in Denmark is that further education is provided (both designed and paid) by the employer.

When it comes to the different *ways of organising teacher qualification*, courses or similar ways of qualifying seem to be the most frequently used. For example, training of longer duration may be integrated in a whole structure of educational programmes, like in the UK, or it could be shorter courses or training with more specific targets.

One of the advantages of this way of organising qualification upgrades is that it lets teachers step out of their daily practice and look at it from the outside. It provides opportunities for reflection. Through inspiration from teachers at the institution and perhaps through each teacher's own work with issues of teaching and planning, teachers may acquire new ways of understanding their role as teachers. Another advantage is the possibility mentioned in the Italian contribution, that courses and education can be used to qualify teachers in for instance economics or leadership, to prepare them for new positions such as coordinators or managers.

The Finnish situation illustrates some of the weaknesses in a course- and education-based model. The limited resources for further education of teachers mean that the bulk of the teachers have limited opportunities to upgrade their qualifications on an ongoing basis. Therefore, some schools have pooled the resources for further education in order to arrange shared activities and opportunities offers at the school.

This idea of offering school-based qualification upgrading to teachers not only serves as a rationalisation of the resources spent on education. First of all because the qualifications become firmly applied in practice. Some teachers experience it as senseless to participate in courses that do not have a rather close and obvious relation to practice. Because the education in the school-based form is taking place at the school, and is perhaps even linked with organisational development of the school, teachers can make use of the course content in their daily teaching practice, rather than simply talking about practice. Secondly, it creates a whole different opportunity of implementing pedagogical reflection and development, because all

the teachers at the school or the department participate in the course, and not just two or three teachers. Teacher qualification then becomes an issue for the whole organisation rather than for the individual teacher.

However, this requires that the individual teacher has some kind of stable and continuous relation to one school or department, which for instance is not the case for all teachers in Italy and in Finland. There are other problems relative to this form of organising teacher qualifications, and they stem from the difficulties of preparing the organisation for this kind of change. In Denmark, an intermediate approach has been tried where a large group (but not all) of the teachers attended an educational programme in which an integral part was to have the participating teachers organise initiatives for their own school.

Another way of combining qualification and practice is the use of supervision, peer observation and portfolios. This is applied in the UK as a part of quality assurance and quality development systems and it entails teacher qualification that takes as its starting point the situation and conditions of the specific teacher in question. Therefore the qualification can be targeted more precisely at areas that give the teacher opportunities for development or perhaps even to areas where he or she would have to change. Qualification of this kind links up with the teachers' own situation and needs, and the use of portfolios seeks to encourage the teachers' reflection of his or her own teaching.

The difficulties facing this type of qualification is first and foremost its context. When supervision becomes a part of a quality assurance system there is a risk of focus shifting away from the teacher's development of his or her pedagogical competences or perhaps the development of new qualifications. Instead, focus in relation to the errors or criticism formulated of the teacher's teaching will be on meeting the school's needs for not getting bad evaluation marks or not having bad marks in its quality reports. The supervision etc. will not have the teacher, but the school, as its prime interest.

Furthermore the supervision, portfolio work etc. could be carried out in an atmosphere of anxiety because the teacher fears lo~~o~~sing his or her job. The process of development thus will be marked by fear and insecurity rather than by an interest in developing as a teacher. Even if the supervision is not related to school evaluations but rather is integrated in reflecting teams or other groups of colleagues, the notion of being controlled can be rather strong for the teacher.

One way of trying to benefit from the advantages of the supervision without its flavour of surveillance and control is letting teachers teach together. Through this kind of team-teaching they are able to experience each other's way of teaching, both getting feedback on their own teaching and inspiration from seeing the colleague teach, and at the same time they are in a position where they have to develop the teaching together. But the relation between them is more symmetric than in the supervision: they share the task of managing the teaching

according to official aims, and simultaneously they have the possibility of working out ideas together.

The weakness of the model – apart from the resources it requires – is that the teachers will not necessarily pay attention to the part of the process in which they learn themselves. The risk is that the team rather than being a framework for learning merely turns into a practical way of organising the teaching.

The attention on the learning process of the teacher is more likely in the mentor-organisation where a new teacher (a novice) follows an experienced teacher (the mentor). This form is obviously asymmetric, but provides legitimate room for questions and reflection, and this could also give the mentor inspiration to further develop his or her teaching. The risk is that the division of roles means that instead of providing room for development, the existing – and perhaps old – practice is being passed on uncritically. This form of teacher qualification has been very frequent at Danish AMU-centres, and it is still being used.

In other words: several different forms of teacher qualification already exist. In the next phase, this project will involve an analysis and discussion of the strengths, weaknesses and possibilities of the different forms – both with respect to the challenges the educational systems are facing, and to the different starting points in the four countries. But this discussion of forms of qualification need to take the *aims* of qualification into consideration: what qualifications should the teacher develop? The aims of qualification should obviously reflect the challenges and trends that are predominant in the systems, and that was discussed in section 3.1. These trends point to four main fields of teacher qualification:

- Pedagogical methods, including the use of ICT, project and/or problem based forms and pedagogical developmental work.
- Analytical skills, both of educational needs, interests and needs of the participants and the selection of content.
- Crafts and professional skills and competences, that is the qualifications related to the profession or craft the education is aiming at, including the use of ICT in the workplace and other changes in the organisation of work
- Self-development, including the teacher's basis for further qualifications.

The aims of qualifications related to the *pedagogical methods* include several elements. Firstly, the changes in the aims of the courses and educational programmes where the teachers are teaching also point to changing modes of teaching. The teachers must develop and expand their repertoire of pedagogical techniques that they make use of in the classroom. Important aspects of this are techniques that involve the participants in working independently and in a problem solving way. Secondly, the teachers must become capable of using ICT as an integrated part of the teaching, be it in their own preparation or as an element in the actual teaching. In this context distance education is a special element because it places the teacher in a different situation than traditional teaching in a classroom with a blackboard. Thirdly,

changes in the group of participants (for instance the growing number of older people in the labour market in Finland) represents a challenge for the teachers to change, e.g. from being youth teachers to being teachers of adults. Finally, the basis and preconditions of the teachers to be involved in pedagogical development or in team teaching are also an issue related to pedagogical methods.

A part of the qualifications related to the pedagogical methods include analytical skills in the context of classroom teaching. *Analytical skills* as a qualification in its own right primarily point to the aspects of the teacher's work that include analysis prior to teaching itself. The increasing flexibility of the education is an important reason for the increasing demands of a teacher's analytical skills. Teachers are increasingly expected to take part in the analysis of educational needs in companies and organisations, as well as of the participants in the course and in the classroom. To what extent the teachers are expected to take part in the analysis in relation to the planning of educational programmes will of course depend on the division of labour between different kinds of functions in the system (consider the rather distinct division in the Italian system). But as the course content becomes less fixed beforehand and as both the companies and the participants expect the content to be targeted at their specific needs and interests, it will be a necessity for the teacher to be able to make a selection of content that is adjusted to the actual participants.

The *qualifications related to the crafts and the professions* that will come in focus will of course depend on what profession or craft the teacher is teaching. But there are common features in the rapid change in the organisation of work in the companies and in the technology used. ICT is just one of several elements here. A large part of the teachers have been recruited as teachers on the basis of their professional qualifications in their field of teaching. But the faster the change in the labour marked, the larger the risk that the qualifications of the teachers are in fact obsolete. This goes both for the knowledge of techniques and machinery and for the changing work cultures.

Finally, *self development* is the aim of qualification that is the most difficult to explain and the most delicate in the way it affects the teachers as persons and an important basis and foundation for the other three aims mentioned above. For many teachers the changes in the vocational training system also confront them with changes in the way they perceive the system and their own role as professionals in this system. The teachers not only have to come to terms with rapid and continuous changes in their daily lives in addition to whatever demands also involve their own development. They must also reflect on their professional self-perception. From being experts in their crafts (in a broad sense) they must develop a dual professionalism: both of the craft and of the teaching profession. And currently, the most predominant trend in education implies that teacher professionalism and the pedagogical reflection are becoming relatively more important than the professionalism related to the craft. Rather than being a craftsman teacher, the teacher must become a pedagogical professional with a craftsman's qualifications. And finally there are indications that the teacher will have

to see him or herself as a part of a unity, a group, rather that as an independent and autonomous practitioner.

Looking at these four fields as the fields where the teachers should qualify, they seem to be quite extensive demands. And they are! One of the challenges in the vocational training systems is the fact that teachers are facing almost impossible demands. A vital part of the reflection on the teacher qualification system therefore has to be a consideration of the limits to qualification and the relation between the qualifications needed, the kind of persons regarded as desirable in the system and finally the teachers already employed there. In this context, the division of labour and the organisation of work at the schools and in the educational systems become very crucial decisions to make. To what extent will the different functions be kept discrete between different individuals, and to what extent will the functions be integrated and carried out by the same individuals.

3.4 Dilemmas in the educational systems

When working on a model for teacher qualification, it is interesting to consider possible issues or elements that may hinder or complicate teacher qualification. In this context we will point to two issues. The first is the inherent dilemmas in the perception of the vocational training system. The second is dilemmas related to the ambition of keeping the activities and quality at the schools under central control on the one hand, and of decentralising the same activities, and making them more flexible, on the other.

The dilemma in the perception of the vocational training system and the role it plays and should play becomes apparent in three fields, of which the first two are linked together. The first is whether the vocational training system is perceived as something targeted at individuals or at companies. Are the educational programmes provided by the schools considered an offer of further education to the workers, be it to give an opportunity to change jobs or be it an unemployed trying to qualify for a job. Or is the programme primarily considered an offer to the companies and is the programme adapted to the wishes and needs the companies have for qualifying their employees, but without necessarily taking the workers' own needs or interests into consideration. These two different perceptions impact on the role the school, the teachers and others at the school should play in relation to educational needs on the labour market.

This again should be seen in relation to another aspect, namely if the education is perceived as a public service or as a commodity in the market. In general, education can be understood as the way that society seeks to provide the social qualifications needed that cannot be expected to be provided by parents, peers or individual employers. The emergence of a vocational training system for young people can in this context be interpreted as the effect of society's wish to give broader qualifications to young people than what the individual companies would be inclined to give. Education in this perspective is a public service that basically is not linked to the individual company but that is intended to contribute to a broad qualification of

the labour force, and support both mobility and the general competitive strength of the private enterprises on the global markets.

On the other hand, if education is regarded as a commodity on a market, then the broad social perspective will not be very dominant. Instead the view will be that the market will be able to regulate which qualifications are needed and which qualifications are necessary. Usually buyers in the market will be companies rather than individual workers, but this could differ from country to country.

A basic view of education as something aimed at individuals would more likely lead to a perception of vocational training as a public service. Conversely, a growing orientation towards the market means that education will increasingly be aimed at companies rather than at individuals.

But the status of the education as either a service or a commodity creates specific conditions for teacher qualification. First and foremost, teacher qualification in a market perspective must be regarded rigidly as an investment that should pay off. This also means that the amount of resources invested in teacher qualification will depend on the market situation. Basically, teacher qualification is subordinate to an economic rationality that is not guaranteed to reflect the needs for qualification stemming from developments in the labour market.

However, the Italian experience shows that it is by no means certain that public funding independent of market needs and logic leads to sufficient resources or activities in relation to teacher qualification. And conversely, one could claim that well managed companies (including schools) know how to qualify their employees – perhaps even especially in a critical market situation in order to improve their competitive position. Unfortunately, not all schools are well managed in this sense, and the market situation could even be so tight that there are no extra resources to invest in training. In recent years, Danish schools have seemed to be in this situation. If the basic perception of the schools is that of training as a commodity, it could limit teacher qualification as training would be considered solely as part of economic logic, and primarily aimed at companies' needs, and not so much at individuals.

This points to a third issue, namely the dilemma between planning the supply of the schools and of teacher qualification and an economic mode of control in which educational programmes supplied by the schools is determined by the schools' resources alone. In such a situation, there is no guarantee whatsoever that the planning required by the system at central level will be possible within the given economic framework.

The market approach is dominant in all four systems described in this project. This is a development that has not been as clear and unequivocal in Denmark and Finland until in the last few years, while it has been present longer in Italy and the UK. But it means that the teacher training that will emerge must either subordinate itself to the logic of the market, or

must be accompanied by a more general discussion of the conditions of educational development and teacher qualification. In the short run it means that the resources available to qualification in the educational systems are limited by the conditions provided by the market, and that the qualification of teachers must be justified in relation to the expected pay-off.

The problems in the second dilemma, that of national planning and local flexibility, are quite similar. To a certain extent, national planning will draw on a perception of education as a societal activity that should secure certain qualifications in the labour force. This does not exclude central planning taking the companies interests into consideration, but it means that analyses of qualification needs and needs for development are carried out at central level (be it national or regional) and that schools will attempt to follow-up on the analyses by taking initiatives on their own. This could be new types of courses, new teaching methods or changing teacher qualifications.

In principal these analyses could just as well be made at the individual school. But again the basic logic that forms the decisions of the schools is important: does the day-to-day management of the school and the need to develop educational programmes simply fit snug? Will there be sufficient room for new ideas, experiments and teacher qualifications when the schools also have to consider the need to make ends meet?

The first two dilemmas relate to the basic logic of the system. The four countries have different traditions, but there are common features: the market approach and the company perception is the dominant one. How does that affect teacher qualification? Does it support it (as the Italian experience indicates) or restrain it (as part of the Danish experience suggests)? But at the same time these are dilemmas that are very difficult to change, since they relate to fundamental political trends that have emerged in the last decade or two.

3.5 Teachers and teacher qualification

As described in connection with the analytical framework, teacher qualification has to be seen in several contexts. First of all in relation to teachers' biographies. Biographies mean teacher qualifications and experience: how they understand and interpret this experience, and how they transform this understanding into ideas of what will happen in the future and the acts that will be based on such ideas. Qualification should also be seen in relation to the division of labour employed by the educational system, and in this context primarily the division of labour between on the one hand mainly academic/intellectual educational programmes and approaches and on the other hand mainly craft-oriented training programmes. And finally the various qualification elements must be perceived as integral parts of a total qualification process and as something that must be integrated in an existing qualification structure. Such qualification elements are not independent, separate qualifications that merely have to be absorbed by the teacher. This qualification structure contains elements that may counter qualification or indeed encourage or motivate qualification. As a result, such elements also contain conditions for how a teacher qualification system functions.

The qualifications that teachers need to develop are characterised by two aspects: Firstly, they emphasise the pedagogical aspects of teaching. The teaching aspect of the profession is strengthened. Teachers have to analyse training needs, adjust teaching forms and select material. The pedagogical aspect is thus connected to practice, but practice is based on an analysis normally related to academic work. Secondly, qualifications are characterised by the fact that they change the fundamental understanding of what training is all about, in respect of work organisation (e.g. increased use of teamwork) and by forcing teachers to develop and change all the time.

The educational systems of the four countries are characterised by what Basil Bernstein, a British sociologist, describes as a strong classification between the intellectual/academic and the craft-oriented aspects, i.e. a strong separation between the parts of the educational system that are oriented towards one of the aspects and the parts that are oriented towards the others. The four systems do not separate at the same point, but they all separate the intellectual and the craft-oriented aspects. A characteristic feature of school-based programmes is the decontextualisation, i.e. content is separated from context. As part of teacher training, would-be teachers are taught educational theory, but usually not in relation to pedagogical practice. At university, students are taught physics, economics or medicine but in a school-setting, in which reality is presented in the form of cases, if at all, and is usually only found outside the classroom.

By contrast, many of the crafts or professions represented by some of the teachers are characterised by being taught in the context where they will be used. Craftsman training often contains a higher degree of practical work, carried out not in school workshops but in companies and in real jobs. What you learn is directly connected to use, and it has a meaning of its own. It is situated (Lave & Wenger 1991). Form and type of training are connected, and as training also constitutes a socialisation process, it becomes a fundamental point of view and approach with the person completing the training programme. A person's background being in a decontextualised or situated learning history will impact on the way analysis is perceived: is it something that you sit down and think about, something that requires careful consideration? Or is it a question of finding a quick solution, making it function here and now, in practice?

Teachers' educational backgrounds will therefore also have an impact on how they experience new qualification requirements, and whether such requirements seem reasonable. Teachers who have been socialised for craftsmanship will perceive the analytical requirements as empty, as academic tomfoolery while teachers with school-based educational backgrounds will see the connection to their school experience, and they will be able to revive the way of handling qualification that they used at school, without worrying about the connection between qualification and practice. It is important to note that there are people with academic backgrounds who connect to practice and craftsmen who are fine analysts. But the socialisation process they have been through during their education and training will point them in a certain direction.

Bernstein's concept of classification of the educational system may also focus on another aspect. The increased emphasis on analysis as an element in teaching and teacher qualification means that the teaching job is gradually becoming more academic. But the strong classification of education and training means that not only is the craft element becoming blended in with the academic element, teaching is also split up, and in the long run it may end up on the academic side of the division of labour. You might say that teaching will be academised, which will have a bearing on the requirements for teachers and also on the recruitment of teachers. And as a result the culture of the training programmes taught by teachers and the relation between teachers and participants will change.

Whether this trend becomes significant will depend on the starting point, e.g. to which extent adult training programmes have been separated from youth training programmes.

Teachers' approaches to qualification and qualification requirements will thus be influenced by their educational backgrounds. But also by the socialisation process they have been through: the experience, values and ideas they have obtained and conceived throughout their upbringing and their life at work and outside work. Against that background, it is unfortunate that there is so little knowledge about teachers' backgrounds, because some of the changes in teaching may conflict with the values held by at least some of the teachers. Due to the lack of knowledge, we cannot be very specific about it. But an example from a Danish survey can be used to illustrate the matter and may indicate that there is an element that has to be taken into consideration when developing qualification systems for teachers.

In a 1994 survey of teachers at the AMU-centres in Denmark, participants were asked about their parents' occupations and about what they saw as a good job. As for the teachers' social backgrounds, a significantly larger part of the teachers at the AMU-centres had parents who were self-employed (e.g. farmers, grocers and master artisans) than was the case in the group of workers as a whole and in the entire population. At the same time, a relatively larger number of teachers attached importance to independence, responsibility and development in their jobs than was the case with workers who had not become teachers. These two results fit in a way that is characteristic for self-employed people: independence is very important in the choice of further career and working life (Rasmussen 1985, 1990). Against that background, the teaching job is perfect: you use your profession, but to a very large extent you are your own master inside the classroom. As one teacher put it: you are independent but you don't have all the administrative trouble. The possibility of combining your profession with independence and autonomy – without the financial and administrative load – is an important element when teachers choose their line of work.

Team structures and team-teaching will thus not constitute a promising development for teachers having the above background. Such teachers will perceive increased "sharing" and communication as a threat against a significant part of the quality of teaching.

The above example indicates that the changes in teachers' jobs, the changed qualification requirements and qualification offers may have a double meaning to teachers: they may be both threatening and promising at the same time. But to understand how teachers will respond to the actual changes and requirements, we need to see teachers as whole persons. Some of the changes will affect the way teachers fundamentally perceive and understand themselves. This applies to these fundamental values, but it may also apply to other aspects of self-perception. And more importantly, different teachers with different backgrounds, values and orientations will perceive development in different ways.

As already mentioned, teachers are experts in working life, and right from the start many of them have a clear perception of themselves as experts, as very competent craftsmen. Part of their identify is connected to their perception of themselves as being competent, but at the same time they know that the longer they are absent from the labour market, they more of their manual skills they will lose. Instead, some of the teachers build up an identity as competent teachers within their subject but still on the basis of their original craft. The required strengthening of the pedagogical professionalism will not necessarily conflict with this self-perception. Nor will the required use of ICT in the classroom. But it *might*. If teachers feel that these new requirements are difficult to fulfil, they will tend to push them away, to avoid having their self-perception shaken. Consequently, even a computer course for teachers that may seem quite trivial may turn into a serious threat at a much more profound level.

In contrast, due to the changed training programmes and requirements for teachers, teachers having a different educational background (and perhaps a different social background) may find it more attractive to become a teacher. The changed content and organisation of work may release energy and resources with the teachers having a background supporting the analytical aspect, the collaborative relationships and the acquisition of new competences. In addition to the educational and social background, gender also has a bearing on the resources and strength of the teacher. This is due to the sharp gender-based division in education and work that exists most places but the fundamentally different gender socialisation also has an impact on the basic competences of individual teachers.

How teachers perceive these changes, and how they react to them, will depend on the actual changes, how they are implemented (e.g. how teachers are involved in changes) and on which background and understanding the individual teacher has. And in that relation, the kind of teacher qualification involved will also become important. And it has not yet been clarified what changes are actually taking place. There are still unanswered questions, for instance regarding the implementation of the changes. It has for example still not been determined how the division of labour will be, how many functions teachers are to handle, to which extent there will be a sharp separation between teaching sessions where the teacher is teaching one class, whether teachers are to work in teams, etc.

3.6 Perspectives for a teacher qualification model

On the preceding pages, we have attempted to outline a number of common features for the educational systems of the four countries, as well as some features that distinguish the four countries from each other. We have emphasised some elements that are characteristic for the four countries' qualification systems, and we have indicated some dilemmas – and perhaps even some contrasts – in the systems. And finally, we have examined in what way teachers' backgrounds have an impact on qualification. On these final pages, we will briefly point to some of the perspectives and challenges that the development of a teacher qualification model will have to relate to.

As to content, two features are very clear. Firstly, by means of teacher qualification teachers will be able to handle much more flexible vocational training programmes both relating to content and form. In other words, it will not be enough for teachers to be competent educational technicians. They also have to be able to plan and analyse educational needs (in the classroom and at company locations), select relevant material, shift between educational methods and collaborate with others. The weight of these requirements for teachers will depend on how each country chooses to handle the challenge of flexibility, first of all how they manage the division of labour between various functions. In all cases, teachers will need to be able to work under different circumstances and to adjust their routines.

In other words, the *pedagogical qualifications* need to be developed.

Another feature is that the development of teachers' ICT qualifications is inevitable. This applies to the use of ICT for teachers' preparation and personal development, the use of ICT as part of teaching and the use of ICT in connection with distance teaching. But the qualification in relation to ICT is not only a need for technical qualification. First of all, ICT qualification must be seen as an aspect of the pedagogical qualification. Teachers' need to have ICT-competences, but they also need to be able to see the consequences of the use of ICT in the learning environment, for participants' course participation, for the selection of material, etc. Teachers need to develop critical pedagogical competences in relation to ICT.

Another main point is teacher recruitment, but also the relationship between adult and youth training. In the systems where teachers teach both adults and young people, teachers tend to have an academic or at least school-based educational background whereas more often teachers involved in adult training have learnt a craft or a profession. The difference in background impacts on teacher qualifications and interests, and on how they relate to course participants' daily job situations or the job situations that await them after they complete the course.

Many of the qualifications that we believe teachers will need to command in the coming years will emphasise teachers' needs for school-based qualifications as many of the qualifications relate to the ability to analyse in a way that is not necessarily developed through craftsman training. Some of the four countries' systems already use teachers with university-level degrees whereas other systems (or parts of them) use a larger proportion of teachers having learned a craft. The two types of teachers have different strengths but also different qualifica-

tion gaps. A fundamental question is whether it is necessary for the systems to academise the vocational training programmes or whether it is more reasonable to give priority to craft-oriented capabilities.

As a result, a qualification model cannot only be dealt with as a practical question of organisation of teacher qualification. It is also a question of *recruitment* and of *what types of teachers the system requires*, perhaps how different types can be mixed. Decisions about recruitment and composition of the group of teachers will then raise the question of which qualification content is needed.

A third perspective concerns the model itself: first of all the composition of different organisations with courses and training programmes as one main type and practice-based learning as another. Considerations of which model to choose must include the conditions facing the schools, where operation and implementation of teaching are central issues. As a consequence, the model should not only be discussed from a learning-based point of view. It should also be feasible and realistic in a teacher's everyday life – either if a course-based model or a model based on teachers' practical work with teaching is preferred.

And that leads to the fourth perspective and the fourth challenge: to which extent should teacher qualification be left to the market and to supply and demand? Can it be assumed that the market will be able to regulate and initiate the necessary training both in respect of volume and content, or will it be necessary to have some degree of public influence. Part of the question relates to whether the market will be able to predict and satisfy qualification needs before they arise or whether the economic rationality will result in training programmes being developed reactively, i.e. when the need has already arisen. This may lead to a deficit in training programmes.

The other part of the question relates to the central and non-central elements. There is a risk that decentralisation creates differences between regions to the effect that regions that are already well-functioning and prosperous have the resources necessary to establish an educational system that will place it in a strong position in relation to future challenges and developments. by contrast, regions that are already under economic strain risk being retained in a circle of insufficient and perhaps obsolete training programmes. These trends are seen in Italy's regionalised system. Is it reasonable that a teacher qualification system (or an educational system) varies from region to region? Is it reasonable at national level? Is it reasonable at European level?

Accordingly, the question of a qualification model for teachers raises more important and more far-reaching questions than the question of educational planning alone. The challenge is to develop a model that will inspire the development of teacher qualification and at the same time be open to the different answers that may be given to the questions being put in different areas of Europe.

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Appendix

QUESTIONAIRE FOR DESCRIPTION OF THE SYSTEM FOR QUALIFICATION OF TEACHERS

The description of the system for qualification of teachers should have as its focus the teachers who are teaching within vocational training for unskilled and semi-skilled workers. This vocational education should be immediately directed at the labour market, though not necessarily be solely focusing on technical skills in its content.

As an example: courses that aim at preparing the participants for entering more specific vocational education is not included. But the teacher who at a course for workers in the tourist sector teaches foreign languages is within the target group for the study.

SECTION A
A brief description of the educational system where the teachers are teaching. The aim of this section is to outline the conditions and requirements that the teachers are facing, e.g. in relation to what functions they are having in relation to description of course-content, what kind of content they are teaching etc.

1: the courses.

- duration
- content (e.g. technical skills, general skills, personal qualifications); different types of aims for the courses
- where is the teaching taking place? At schools, at the workplaces, elsewhere
- target group: how is the ratio between employed and unemployed participants? Other relevant characteristics of the target group (e.g. age, gender, ethnicity)
- organization: who sets the curriculum of the courses? at what level (governmental, regional, local, at the school, by the companies, by the individual teacher); in what way is the curriculum described (in what detail: what is left for the individual teacher to decide?)
- what is the role of the teacher in relation to the curriculum and the decision of the mode of teaching
- to what extend is the teacher collaborating with other teachers in the actual teaching, in the planning of teaching or in other ways?

2: changes

- what changes have the educational system met during the past five years, that has affected the role and the work of the teachers, as well as the qualifications required?

SECTION B
Recruitment

- who is responsible for the recruitment of teachers? who is doing it (at what level of decision), and who are setting the frames for recruiting?
- what criteria or demands of qualifications is taken into account when recruiting teachers (e.g. educational background, experience from the labour market),
- who or what institutional level is setting these criteria or requirements, and in what ways are they set? Is there a formal certification that the teachers should hold? Is it for the individual manager of the school to decide on the basis of more generally formulated demands?
- what is the present composition of the teachers working within the field, with relation to age, gender, educational background, duration of employment as teacher
- are there differences within the educational field, e.g. between different trades or branches?

SECTION C
Basic education of teachers

- when will the teachers have the basic training as teachers, if any? What is the duration of the training?
- setting of content: who sets the content of the teacher training? at what level? is it a fixed curriculum, or is the curriculum rather set up as a framework for the training? Who (if the latter is the case) has the authority to fill out the frames?
- content: what is in the teacher training programme? To what extend does it consist of training in technical skills, pedagogical training, or other types? How does the different parts relate to each other?
- who is teaching in the teacher training programme? To what extend is peers used in training? What form of training is it (classroom teaching, learning in practice, project work etc.)? How many teachers are at a teacher training course)? What institutions are in charge of the training programmes?
- where is the training taking place: in teacher training colleges, at the school, elsewhere? How is it organized: as one bulk of training, as training running parallel with the teachers practicing, as periods of training changing with periods of practicing.
- is there a certification of the teachers? Who or what institution has the authority to issue this certification? On what basis is it issued (is there a test or the like)?
- what teacherroles and modes of teaching is the basic teacher training aiming at?
- how many of the teachers (in %) have had the basic teacher training? Are there any other teacher training programmes that gives access to teaching in the vocational education in question?

SECTION D
Continuing education for teachers

- what possibilities are there for further teacher training? of what kind are these possibilities in relation to content (e.g. pedagogical skills or technical skills), to amount and duration, to on whose initiative the further training is entered, to what form of training is the case
- is further education a right of the teacher? is a requirement?

- who (institutions etc.) are offering the further education? Who (teachers, schools, others) are deciding what offers to take? who are setting the curriculum (cf. the question of the curriculum in section C)

Non-formal training of teachers
- to what extend are teachers actively participating in activities like organizational development at their schools (the schools as a learning organization), pedagogical development of the courses they teach or development of new vocational training programmes or elements, contact to companies or other institutions who make use of the vocational training system?
- are these activities regarded and practiced as non-formal further education?
- are they seen as a natural part of working as a teacher?

SECTION E
Changes and development

The description should end up with a section giving a brief outline of changes in the teacher training system, in the conditions of work for the teachers (e.g. what is regarded as a part of being a teacher and what is not), in the division between different levels and agents in the field regarding formulating the curriculum etc.

Also this section gives the possibility to point to special features of the particular country in question in relation to the teacher training programme.